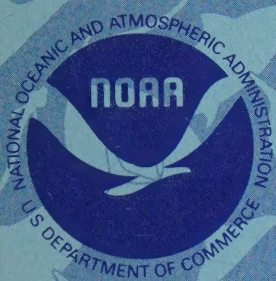


J-79-01



SOUTHWEST FISHERIES CENTER

NATIONAL MARINE FISHERIES SERVICE

SOUTHWEST FISHERIES CENTER

P.O. BOX 271

LA JOLLA, CA 92038

JANUARY 1979

AN ANNOTATED CATALOG OF PUBLISHED AND
UNPUBLISHED SOURCES OF DATA ON POPULATIONS,
LIFE HISTORY, AND ECOLOGY OF COASTAL
MARINE MAMMALS OF CALIFORNIA

COMPILED BY

SCOTT W. JOHNSON

Library
NOAA, National Marine Fisheries Service
SWFC Honolulu Laboratory F/SWC2
2570 Dole Street
Honolulu, HI 96822-2396

ADMINISTRATIVE REPORT LJ-79-1

TABLE OF CONTENTS

Table of Contents	i
Introduction	iii
Marine Mammals of California	vii
Order Pinnipedia	
Comprehensive	1
<u>Arctocephalus townsendi</u>	13
<u>Callorhinus ursinus</u>	19
<u>Eumetopias jubatus</u>	41
<u>Mirounga angustirostris</u>	55
<u>Phoca vitulina</u>	71
<u>Zalophus californianus</u>	87
Order Cetacea	
Comprehensive	105
<u>Berardius bairdii</u>	121
<u>Delphinus delphis</u>	123
<u>Globicephala macrorhynchus</u>	129
<u>Grampus griseus</u>	135
<u>Kogia breviceps</u>	137
<u>Lagenorhynchus obliquidens</u>	139
<u>Lissodelphis borealis</u>	143
<u>Mesoplodon sp.</u>	145
<u>Orcinus orca</u>	147
<u>Phocoenoides dalli</u>	153
<u>Pseudorca crassidens</u>	159
<u>Steno bredanensis</u>	161
<u>Tursiops truncatus</u>	163
<u>Ziphius cavirostris</u>	169
Current Research	171
Bibliography	173
Author Index	175
Subject Index - Pinnipedia	185
Subject Index - Cetacea	189

AN ANNOTATED CATALOG OF PUBLISHED AND UNPUBLISHED SOURCES OF
DATA ON POPULATIONS, LIFE HISTORY AND ECOLOGY OF
COASTAL MARINE MAMMALS OF CALIFORNIA

SCOTT W. JOHNSON

INTRODUCTION

This catalog contains 873 entries. It was compiled as a first step in research to estimate optimal sustainable populations (OSP) for California coastal marine mammals. OSP was defined in the Federal Register, Volume 42, December 23, 1977 as:

"...a population size which falls with a range from that population level of a given species or stock which is the largest supportable within the ecosystem to the population level that results in maximum net productivity. Maximum net productivity is the greatest net annual increment in population numbers or biomass resulting from additions to the population due to reproduction and growth less losses due to natural mortality."

Compiling this catalog involved searching biological abstract indexes, computer indexes, past bibliographies, repositories of unpublished data, noting possible items for inclusion, locating and reading each item, and checking the references included in the item for new citations. Included are published and unpublished references and data sources on distribution, population size, natural mortality, reproduction, and marine mammal/fishery interactions.

Libraries used were those of the National Marine Fisheries Service (NMFS), Southwest Fisheries Center (SWFC), La Jolla, California; (NMFS) Marine Mammal Division, Seattle, Washington; Scripps Institution of Oceanography (SIO), La Jolla, California; the personal library of Prof. C. L. Hubbs, (SIO); the personal library of J. S. Leatherwood, Hubbs-Sea World Research Institute,

San Diego, California; and the personal library of W. F. Perrin, (NMFS), Southwest Fisheries Center, La Jolla, California.

ARRANGEMENT

The catalog is divided into two main sections, for the orders Pinnipedia and Cetacea. Each order is then subdivided into categories, starting with "Comprehensive" and followed by the genera in each order, arranged alphabetically. Within each category, the citations appear alphabetically by author (or custodian of data, in the case of unpublished sources).

The citations are numbered consecutively from 1 to 873. These numbers appear to the left of the author's name.

For easy reference each citation is coded by letter(s). These letters are in the right hand margin and enclosed in parentheses. The letter codes are:

D = Species/stocks of marine mammals and their Distribution

1. Sightings and strandings
2. Faunal inventories in environmental impact reports
3. Field notes of other studies

E = Effort for density and mortality estimation

1. Survey effort: man hours, areas transected
2. Fishing effort: tons of fish per year, boat days per year

F = Marine mammal/Fishery Interactions

1. Frequency of reported complaints from fishermen
2. Records of beached animals which were killed
3. Feeding studies

M = Natural Mortality

1. Age frequencies
2. Rates from similar species of other areas

P = Densities and/or Population Estimates

1. Censuses of specific areas
2. Sighting data

R = Reproductive rates

1. Frequency of adults and calves
2. Frequency of pregnancy

Periodical articles and books may be consulted at public and university libraries; if not in local collections they may be obtained via the libraries' inter-library loan service. Unpublished information may be obtained by consulting the author of the work. Documents bearing the letters (NTIS) may be purchased from the National Technical Information Service, Springfield, VA 22151.

Several items were not seen by the compiler. These citations were not coded by letter.

INDEXES

Author and subject indexes are included. Numbers in the indexes refer to the citation numbers. The author index contains the names of all authors, editors, and compilers cited in the body of the catalog. The subject index is arranged by genera and subdivided into sections for the parameters of distribution, effort, fishery interactions, natural mortality, population estimates, and reproduction.

ACKNOWLEDGEMENTS

Many people were involved in the compiling of this catalog. They include D. Gittings, S. Covey and N. Ross, of the National Marine Fisheries Service (NMFS), La Jolla, California. Appreciation is extended to J. Powers and G. Nitta, (NMFS), who provided direction and guidance. I also wish to thank all those individuals who allowed me access to their unpublished data. I am particularly grateful to P. Ritchie for his assistance in the preparation of this final report and to Ms. P. Mangini and the University of California, San Diego, Word Processing Center for their patience and skills in typing.

MARINE MAMMALS OF CALIFORNIA

The following marine mammals are covered in this bibliography:

PINNIPEDIA

<u>Arctocephalus townsendi</u>	Guadalupe fur seal
<u>Callorhinus ursinus</u>	northern, Pribilof, or Alaska fur seal
<u>Eumetopias jubatus</u>	northern or Steller's sea lion
<u>Mirounga angustirostris</u>	northern elephant seal
<u>Phoca vitulina</u>	common or harbor seal
<u>Zalophus californianus</u>	California sea lion

CETACEA

<u>Berardius bairdii</u>	Baird's beaked whale, giant bottlenose whale
<u>Delphinus delphis</u>	common dolphin
<u>Globicephala macrorhynchus</u>	short-finned pilot whale
<u>Grampus griseus</u>	Risso's dolphin, grampus
<u>Kogia breviceps</u>	pygmy sperm whale
<u>Lagenorhynchus obliquidens</u>	Pacific white-sided dolphin
<u>Lissodelphis borealis</u>	northern right whale dolphin
<u>Mesoplodon carlhubbsi</u>	Hubb's beaked whale
<u>Mesoplodon stejnegeri</u>	Stejneger's beaked whale
<u>Orcinus orca</u>	killer whale
<u>Phocoenoides dalli</u>	Dall's porpoise
<u>Pseudorca crassidens</u>	false killer whale
<u>Steno bredanensis</u>	rough-toothed dolphin
<u>Tursiops truncatus</u>	bottlenosed dolphin
<u>Ziphius cavirostris</u>	Cuvier's beaked whale

Digitized by the Internet Archive
in 2025

I. PINNIPEDIA

COMPREHENSIVE

1. AD HOC GROUP IV. 1976. OUTLINE FOR CASE STUDY - CALIFORNIA CURRENT ECOSYSTEM. ADVISORY COMM. ON MAR. RESOUR. RES. U.N., F.A.O., ACMRR/MM/SC/5 - SUPPL. 3. 13 P. BERGEN, NORWAY, 31 AUG. - 9 SEPT. 1976.

STATES THAT SIX SPECIES OF PINNIPEDS ARE KNOWN FROM THE CALIFORNIA CURRENT. BRIEFLY DISCUSSES INTERACTIONS BETWEEN MARINE MAMMAL SPECIES. MENTIONS THAT COLLISIONS BETWEEN VESSELS AND MARINE MAMMALS OCCUR WITH SOME FREQUENCY IN THE COASTAL WATERS OF CALIFORNIA. ALSO MENTIONS THAT SMALL NUMBERS OF PINNIPEDS ARE KILLED INCIDENTALLY IN FISH GILL-NETS. MOST ENTANGLEMENTS INVOLVE SINKING GILLNETS SET FOR WHITE SEA BASS. (D,F)

2. ALLEN, J.A. 1880. HISTORY OF THE NORTH AMERICAN PINNIPEDS. A MONOGRAPH OF THE WALRUSES, SEA-LIONS, SEA-BEARS, AND SEALS OF NORTH AMERICA. WASH., D.C.: GOV'T. PRINT. OFF. 785 P.

DISCUSSES THE GEOGRAPHICAL DISTRIBUTION, MORPHOLOGY, OSTEOLOGY, GENERAL HISTORY, AND HABITS OF PINNIPEDS. INCLUDES ZALOPHUS, EUMETOPIAS, CALLORHINUS, PHOCA, AND MIROUNGA. (D)

3. ASDELL, S.A. 1964. CARNIVORA AND PINNIPEDIA. PP. 425-508. IN PATTERNS OF MAMMALIAN REPRODUCTION. LONDON: CONSTABLE & CO. LTD., SEC. ED.

VERY BRIEF DISCUSSION ON REPRODUCTION IN PINNIPEDS. CONTAINS GENERAL INFORMATION ON LENGTH OF GESTATION, TIME OF BREEDING AND BIRTH, NUMBER OF YOUNG BORN, AND PREGNANCY RATES FOR SOME. INCLUDES CALLORHINUS, EUMETOPIAS, ZALOPHUS, AND PHOCA. INFORMATION ON THE SOUTHERN ELEPHANT SEAL, MIROUNGA LEONINA, MAY BE PERTINENT TO THE NORTHERN ELEPHANT SEAL, MIROUNGA ANGUSTIROSTRIS. (R)

4. BANDAR, R. 1978. UNPUBLISHED PINNIPED DATA. DIV. OF BIRDS AND MAMMALS, CALIF. ACAD. SCI., SAN FRANCISCO, CALIF.

MR. BANDAR HAS DATA ON A PINNIPED CARCASS SURVEY HE CONDUCTED IN HUMBOLDT AND DEL NORTE COUNTIES IN JULY 1976. SURVEY NOTES INCLUDE LOCATION OF CARCASS, SPECIES, SEX, LENGTH, AND CONDITION OF ANIMAL. MANY OF THE ANIMALS FOUND WERE SHOT, ONE WITH AN AUTOMATIC WEAPON IN VICINITY OF THE KLAMATH RIVER. INCLUDES ZALOPHUS, PHOCA, EUMETOPIAS, AND CALLORHINUS. MR. BANDAR ALSO HAS NOTES ON APPROXIMATELY 185 MARINE MAMMAL CARCASSES THAT WASHED ASHORE IN CENTRAL OR NORTHERN CALIFORNIA FROM 1960-1971, THAT ARE NOT TABULATED IN THE ACADEMY'S FILES. THIS DATA RECORDS THE TIME OF DEATH, LENGTH OF ANIMAL, SEX, AND APPROXIMATE AGE. MR. BANDAR ALSO HAS DATA OF SIMILAR NATURE FOR THE 1950'S AND 1975 THAT ARE NOT IN THE ACADEMY'S FILES. (D,F)

COMPREHENSIVE

5. BARHAM, E. 1978. HISTORICAL MARINE MAMMAL SIGHTINGS IN MONTEREY BAY. U.S. DEPT. COMMER., NOAA (NMFS), SOUTHWEST FISHERIES CENTER, LA JOLLA, CALIF. 18 P. (UNPUBL. REP.).

CONTAINS PINNIPED SIGHTING RECORDS FOR THE PERIOD 1950-1955. (D)
NOTES THAT THERE WERE A TOTAL OF FOUR ZALOPHUS OR EUMETOPIAS SIGHTINGS AND TWO MIROUNGA SIGHTINGS. NOTES MONTHS IN WHICH FUR SEALS WERE SIGHTED. ALSO IDENTIFIES ANOTHER SOURCE OF UNTAPPED MARINE MAMMAL SIGHTING DATA AT HOPKINS MARINE STATION.

6. BREEN, B. UNPUBLISHED PINNIPED STRANDING DATA. PARK NATURALIST, JAMES V. FITZGERALD MARINE RESERVE, MOSS BEACH, CALIF.

HAS STRANDING RECORDS OF NINE PINNIPEDS FROM MOSS BEACH DURING (D,F)
1973-1978. INCLUDES FOUR ZALOPHUS, ONE MIROUNGA, TWO PHOCA, AND TWO EUMETOPIAS. ONE OF THE STRANDED HARBOR SEALS HAD A BULLET HOLE IN THE LEFT TEMPLE.

7. BROWN, D. UNPUBLISHED PINNIPED OBSERVATIONS. PT. REYES NATL. SEASHORE, PT. REYES, CALIF.

AN ON-GOING OBSERVATION FILE WAS STARTED IN 1966. INCLUDES OBSER- (D)
VATIONS OF STRANDED ANIMALS AND INCIDENTAL SIGHTINGS. DATA INCLUDES DATE OF STRANDING OR SIGHTING, TIME, LOCALITY, NUMBER OF ANIMALS, AND MISCELLANEOUS NOTES SUCH AS THE PRESENCE OF BULLET HOLES IN STRANDED ANIMALS. THE FILES CONTAIN ONE OR MORE REPORTS FOR THE FOLLOWING: CALLORHINUS, EUMETOPIAS, MIROUNGA, PHOCA AND ZALOPHUS.

8. BROWN, V. 1976. PINNIPEDIA. PP. 35-100. IN SEA MAMMALS AND REPTILES OF THE PACIFIC COAST. LONDON: COLLIER MACMILLAN PUBLISHERS.

BRIEF DISCUSSION ON THE GENERAL BIOLOGY, RANGE, HABITATS, FOOD, AND (D)
LOCOMOTION OF PINNIPEDS. INCLUDES CALLORHINUS, EUMETOPIAS, PHOCA, ARCTOCEPHALUS, AND ZALOPHUS.

9. BRYDEN, M.M. 1972. GROWTH AND DEVELOPMENT OF MARINE MAMMALS. PP. 1-79. IN (HARRISON, R.J., ED.), FUNCTIONAL ANATOMY OF MARINE MAMMALS. VOL. 1. LONDON AND NEW YORK: ACADEMIC PRESS.

DISCUSSES LINEAR GROWTH IN PINNIPEDS BASED ON BIRTH, LACTATION, (R)
WEANING, SEXUAL MATURITY, AND PHYSICAL MATURITY. INCLUDES CALLORHINUS, EUMETOPIAS, PHOCA, AND ZALOPHUS.

10. BUREAU OF LAND MANAGEMENT. 1975. IMPACT ON MARINE MAMMALS. PP. 174-185. IN FINAL ENVIRONMENTAL STATEMENT PROPOSED 1975 OUTER-CONTINENTAL SHELF OIL AND GAS GENERAL LEASE SALE OFFSHORE SOUTHERN CALIFORNIA. VOL. 2 of 5. U.S. DEPT. INTER.

COMPREHENSIVE

DISCUSSES THE EFFECT THE DEVELOPMENT OF THE OUTERCONTINENTAL SHELF AREA COULD HAVE ON 28 SPECIES OF MARINE MAMMALS. ALSO MENTIONS THE POSSIBLE EFFECT OF A MAJOR OIL SPILL. CONCLUDES THAT OF ALL THE DANGERS INVOLVED IN THE PROPOSED LEASE, THAT TO PINNIPEDS IS POTENTIALLY THE WORST.

(D)

11. CALIFORNIA MARINE MAMMAL CENTER. UNPUBLISHED PINNIPED STRANDING DATA. MARIN HEADLANDS RANGER STATION, FORT CRONKITE, CALIF.

THE CENTER HAS BEEN IN OPERATION SINCE MAY 1975. TO DATE (10/78) THERE HAS BEEN A TOTAL OF 161 STRANDINGS COMPRISED OF THE FOLLOWING PINNIPEDS: 65 ZALOPHUS, 41 PHOCA, 50 MIROUNGA, 1 ARCTOCEPHALUS, AND 4 CALLORHINUS. DATA INCLUDES DATE OF STRANDING, LOCATION, CONDITION OF ANIMAL, AND WHETHER IT WAS FOUND ALIVE, DEAD, OR EVENTUALLY RELEASED AFTER TREATMENT. APPROXIMATELY 15-20 ANIMALS (MOSTLY ZALOPHUS) THAT STRANDED HAD BEEN SHOT. THE CENTER HAS SOME INFORMATION REGARDING THE INTERACTION BETWEEN ZALOPHUS AND COMMERCIAL SALMON AND HERRING FISHERMEN IN SAN FRANCISCO BAY.

(D,F)

12. DAILEY, M.D. 1974. MARINE MAMMALS. REPRINTED FROM A SUMMARY OF KNOWLEDGE OF THE SOUTHERN CALIFORNIA COASTAL ZONE AND OFF-SHORE AREAS. SO. CALIF. OCEAN STUDIES CONSORTIUM. B.L.M. CONTRACT NO. 08550-CT4-1. 37 P.

PAGES 16-37 INCLUDE INFORMATION ON THE RANGE, STUDY AREA SIGHTINGS, POPULATION SIZE, LIFE HISTORY, AND DISEASES OF PINNIPEDS. INCLUDES CALLORHINUS, ARCTOCEPHALUS, EUMETOPIAS, MIROUNGA, PHOCA, AND ZALOPHUS.

(D,P)

13. DAUGHTERY, A.E. 1972. ORDER PINNIPEDIA. PP. 56-73. IN MARINE MAMMALS OF CALIFORNIA. CALIF. DEPT. FISH & GAME, SEC. REV.

BRIEF DISCUSSION ON THE OVERALL DISTRIBUTION, SIGHTINGS, POPULATION SIZE, AND GENERAL BIOLOGY OF PINNIPEDS. INCLUDES ARCTOCEPHALUS, CALLORHINUS, EUMETOPIAS, MIROUNGA, PHOCA, AND ZALOPHUS.

(D,P)

14. DeLONG, R.L. 1971. COMMERCIAL SEA LION CAPTURING AT ADAMS COVE, SAN MIGUEL ISLAND, CALIFORNIA, SUMMER 1970. MAR. MAM. BIOL. LAB., U.S. DEPT. COMMER., NOAA/NMFS, NORTHWEST AND ALASKA FISHERIES CENTER, SEATTLE, WASH. 7 P.

DISCUSSES THE COMMERCIAL CAPTURING OF CALIFORNIA SEA LIONS IN GILL NETS OFF ADAMS COVE. STATES THAT EUMETOPIAS, MIROUNGA, ZALOPHUS, ARCTOCEPHALUS, AND CALLORHINUS USE THE ADAMS COVE AREA FOR BREEDING OR OTHER ACTIVITIES AND THAT DISTURBANCE ON THE ROOKERY CAUSES

(D,F)

COMPREHENSIVE

MORTALITY AMONG NEWBORN PUPS. MENTIONS THAT IN 1970 NINE NORTHERN FUR SEALS BECAME ENTANGLED IN NETS SET FOR CALIFORNIA SEA LIONS. SUGGESTS THAT THE CDF&G CLOSE ADAMS COVE TO THE COMMERCIAL CAPTURING OF SEA LIONS FROM MAY 15 TO NOVEMBER 15 TO AFFORD PROTECTION TO THE UNIQUE POPULATION OF PINNIPEDS ON SAN MIGUEL.

15. DELONG, R.L. 1971. SEALS AND SEA LIONS OF SAN MIGUEL ISLAND, CALIFORNIA. CAL-NEVA WILDL. TRANS. 1971, PP. 15-17.

BRIEFLY MENTIONS THE SIX SPECIES OF PINNIPEDS FOUND ON SAN MIGUEL ISLAND AND NOTES THAT FIVE OF THE SPECIES BREED ON THE ISLAND. DATA INCLUDES POPULATION SIZE, TIME OF PUPPING, AND TIME OF BREEDING. INCLUDES PHOCA, MIROUNGA, ZALOPHUS, ARCTOCEPHALUS, EUMETOPIAS, AND CALLORHINUS.

(D,P)

16. FISCUS, C.H. 1978. MARINE MAMMAL - SALMONID INTERACTIONS: A REVIEW. MAR. MAM. DIV., NORTHWEST AND ALASKA FISHERIES CENTER, PREPARED FOR U.S. - U.S.S.R. SYMP. ON SALMONID ECOSYSTEMS OF THE NORTH PACIFIC OCEAN, 5-10 MAY 1978, NEWPORT, OR. 31 P.

DISCUSSES INTERACTIONS BETWEEN PINNIPEDS AND SALMONIDS IN THE NORTH PACIFIC OCEAN. KNOWN SALMONID PREDATORS INCLUDE THE HARBOR SEAL, NORTHERN SEA LION, AND THE CALIFORNIA SEA LION IN NEAR SHORE AND ESTUARINE WATERS, AND THE NORTHERN FUR SEAL AND NORTHERN SEA LION IN OFFSHORE WATERS. MOST MARINE MAMMAL PREDATION ON SALMONIDS OCCUR IN NEAR SHORE AND ESTUARINE WATERS AND IN THE LOWER REACHES OF SALMONID STREAMS AFTER THE FISH ARE CAUGHT IN FISHING GEAR. GIVES BRIEF DESCRIPTIONS AND NUMBERS OF THOSE PINNIPEDS KNOWN TO PREY ON SALMONIDS. MENTIONS THAT DAMAGE BY MARINE MAMMALS TO CAUGHT FISH IN THE OFFSHORE SALMON TROLL FISHERY IS CONSIDERED MINIMAL OFF CALIFORNIA.

(F,P)

17. FREY, H. W. 1971. CALIFORNIA'S LIVING MARINE RESOURCES AND THEIR UTILIZATION. STATE OF CALIF., THE RESOURCES AGENCY, DEPT. FISH & GAME.

PAGES 113-114 MENTION PINNIPEDS FOUND ALONG CALIFORNIA COAST AND OFFSHORE ISLANDS. NOTES THAT COMMERCIAL AND SPORTS FISHERMEN ARE ALLOWED TO KILL SEA LIONS AND HARBOR SEALS INTERFERING WITH FISHING OPERATIONS. INCLUDES ZALOPHUS, EUMETOPIAS, PHOCA, MIROUNGA, CALLORHINUS, AND ARCTOCEPHALUS.

(D,F)

18. GREEN, K. 1978. ECOSYSTEM DESCRIPTION OF THE CALIFORNIA CURRENT. DRAFT FINAL REP., MARINE MAMMAL COMMISSION, CONTRACT NO. MM7AC-026. 79 P.

CONTAINS INFORMATION ON THE SEASONAL AND GEOGRAPHIC VARIATIONS IN

(D,F,P)

COMPREHENSIVE

THE DISTRIBUTION OF PINNIPEDS IN THE CALIFORNIA CURRENT SYSTEM. INCLUDES CHARTS NOTING FEEDING HABITS AND ABUNDANCE ESTIMATES. DISCUSSES BIOMASS AND ANNUAL FOOD INTAKE FOR PINNIPEDS AND CONTAINS A CHART WITH THE ESTIMATED PROPORTIONS OF PREY GROUPS IN THE DIET OF PINNIPEDS. COVERS PHOCA, MIROUNGA, EUMETOPIAS, ZALOPHUS, CALLORHINUS, AND ARCTOCEPHALUS.

19. GRINNEL, J. 1933. REVIEW OF THE RECENT MAMMAL FAUNA OF CALIFORNIA. UNIV. CALIF. PUBL. ZOOLOG. 40:7-234.

PAGES 116-118 CONTAIN ORIGINAL DESCRIPTION, TYPE LOCALITY, SYNONYMS, AND RANGE FOR PINNIPEDS OF CALIFORNIA. INCLUDES ARCTOCEPHALUS, CALLORHINUS, EUMETOPIAS, MIROUNGA, PHOCA, AND ZALOPHUS. (D)

20. HALL, E. R. AND K. R. KELSON. 1959. ORDER PINNIPEDIA. PP. 973-988. IN THE MAMMALS OF NORTH AMERICA. VOL. II. NEW YORK: THE RONALD PRESS CO.

DISCUSSES THE MORPHOLOGY AND RANGE OF PINNIPEDS OF THE PACIFIC COAST. INCLUDES CALLORHINUS, ARCTOCEPHALUS, EUMETOPIAS, ZALOPHUS, PHOCA, AND MIROUNGA. (D)

21. HOWORTH, P. C. 1976. THE SEALS OF SAN MIGUEL ISLAND. OCEANS 9(5): 38-43.

BRIEFLY DISCUSSES THE PINNIPED INHABITANTS OF SAN MIGUEL ISLAND. INCLUDES ZALOPHUS, PHOCA, MIROUNGA, EUMETOPIAS, CALLORHINUS, AND ARCTOCEPHALUS. (D)

22. HUBBS, C. L. UNPUBLISHED PINNIPED DATA. SCRIPPS INST. OCEANOLOGY, LA JOLLA, CALIF.

DR. HUBBS HAS PINNIPED SIGHTING AND STRANDING DATE ON FILE FROM 1947 TO PRESENT. MOST OF THIS DATA IS IN ROUGH OR HAND WRITTEN FORM AND MAINLY COVERS SOUTHERN CALIFORNIA. INCLUDES ARCTOCEPHALUS, CALLORHINUS, EUMETOPIAS, MIROUNGA, PHOCA, AND ZALOPHUS. FISHERY INTERACTIONS INCLUDE THE FOLLOWING: JANUARY 28, 1947 - REPORT OF SEVERAL ZALOPHUS CAUGHT IN SHARK NETS OFF LA JOLLA, JANUARY 22, 1954 - REPORT OF 1200 ZALOPHUS SHOT AND KILLED ON LOS CORONADOS, JUNE 13, 1965 - REPORT OF 100 ZALOPHUS AND ONE MIROUNGA SHOT ON SANTA BARBARA ISLAND, AND VARIOUS COMPLAINTS FROM COMMERCIAL FISHERMEN ABOUT INTERFERENCE FROM PHOCA AND EUMETOPIAS. MANY OF THE STRANDING RECORDS OF PINNIPEDS NOTE IF THE ANIMALS WERE SHOT. NOTES ON A 1977 CENSUS INDICATE 11,020 MIROUNGA ARE PRESENT IN CALIFORNIA WATERS. INCLUDES SOME DATA ON FOOD AND REPRODUCTION FOR ZALOPHUS. ALSO HAS VARIOUS NEWSPAPER CLIPPINGS DEALING WITH PINNIPEDS IN THE SOUTHERN CALIFORNIA AREA (D,F,P,)

COMPREHENSIVE

FROM 1947-PRESENT.

23. INGLES, L.G. 1965. ORDER CARNIVORA, SUBORDER PINNIPEDIA. PP. 394-409. IN MAMMALS OF THE PACIFIC STATES. STANFORD, CALIF.: STANFORD UNIV. PRESS.

BRIEF DISCUSSION ON THE OVERALL DISTRIBUTION AND GENERAL BIOLOGY OF PINNIPEDS. INCLUDES CALLORHINUS, ARCTOCEPHALUS, EUMETOPIAS, MIROUNGA, PHOCA, AND ZALOPHUS. (D)

24. KEYES, M.C. 1968. THE NUTRITION OF PINNIPEDS. PP. 359-395. IN (HARRISON, R.J., R.C. HUBBARD, R.S. PETERSON, C.E. RICE, AND R.J. SCHUSTERMAN, EDS.), THE BEHAVIOR AND PHYSIOLOGY OF PINNIPEDS. NEW YORK: APPLETON-CENTURY-CROFTS.

CONTAINS A DETAILED DISCUSSION ON THE FOOD HABITS OF PINNIPEDS. INCLUDES A REVIEW OF THE LITERATURE ON THE FOOD OF WILD PINNIPEDS AND AND A SURVEY OF FEEDING PRACTICES FOR PINNIPEDS IN ZOOS AND AQUARIUMS. INCLUDES EUMETOPIAS, ZALOPHUS, CALLORHINUS, PHOCA, AND MIROUNGA. (F)

25. LAEVASTU, T. AND F. FAVORITE. 1977. MINIMUM SUSTAINABLE BIOMASSES OF MARINE ECOLOGICAL GROUPS OFF CENTRAL AND NORTHERN CALIFORNIA, OREGON, WASHINGTON, AND VANCOUVER ISLAND COASTS. (A NUMERICAL EVALUATION OF LIVING MARINE RESOURCES OFF THE WEST COAST OF THE UNITED STATES). U.S. DEPT. COMMER., NOAA (NMFS), NORTHWEST AND ALASKA FISHERIES CENTER, SEATTLE, WA. 60 P.

DISCUSSES THE ADAPTATION OF AN ECOSYSTEM MODEL TO DETERMINE THE STANDING STOCKS OF VARIOUS MARINE ECOLOGICAL GROUPS (WITH EMPHASIS ON FISHERIES), ALONG AND OFF THE CENTRAL AND NORTHWESTERN CALIFORNIA COAST. THE COAST WAS DIVIDED INTO COMPUTATIONAL SUBAREAS AND FOR EACH AREA THE NUMBER OF FUR SEALS AND SEA LIONS WAS DETERMINED. DATA INCLUDES FOOD COMPOSITION AND CONSUMPTION BY VARIOUS PINNIPEDS AND CONTAINS CHARTS SHOWING THE CONSUMPTION OF SPECIFIC ECOLOGICAL GROUPS (SQUIDS, SARDINES, ETC.) IN 10^3 METRIC TONS PER YEAR. NOTES THAT THE FINFISH CONSUMPTION BY PINNIPEDS IS HIGHER THAN THE U.S. COMMERCIAL CATCH. SUMMARIZES THAT AN OPTIMUM FISHERIES MANAGEMENT PLAN WOULD REQUIRE A SIGNIFICANT REDUCTION OF MARINE MAMMALS. (D,F,P)

26. LeBOEUF, B.J. AND M.L. BONNELL. PINNIPEDS OF THE CALIFORNIA ISLANDS: ABUNDANCE AND DISTRIBUTION. IN (POWER, D., ED.), THE CALIFORNIA ISLANDS: PROCEEDINGS OF A MULTIDISCIPLINARY SYMPOSIUM. UNIV. CALIF. PRESS. (IN PRESS).

DISCUSSES CHANGES IN VARIOUS CHARACTERISTICS OF PINNIPED POPULATIONS WHICH HAVE OCCURRED DURING THE LAST 13 YEARS -- CHANGES IN NUMBER AND DISTRIBUTION AND CHANGES IN REPRODUCTIVE RATE AND MORTALITY. DATA COVERS THE CHANNEL ISLANDS IN SOUTHERN CALIFORNIA, AND NUEVO AND THE (D,M,P,R)

COMPREHENSIVE

FARALLONS IN NORTHERN CALIFORNIA. INCLUDES ARCTOCEPHALUS, CALLORHINUS, EUMETOPIAS, MIROUNGA, PHOCA, AND ZALOPHUS.

27. LÉBOEUF, B.J., M.L. BONNELL, M.O. PIERSON, D.H. DETTMAN, AND G.D. FARRENS. 1976. PINNIPEDIA: NUMBERS, DISTRIBUTION AND MOVEMENTS IN THE SOUTHERN CALIFORNIA BIGHT. SECTION I: PP. 1-269. IN (REGENTS OF THE UNIVERSITY OF CALIFORNIA, ED.), MARINE MAMMAL AND SEABIRD SURVEY OF THE SOUTHERN CALIFORNIA BIGHT AREA. VOL. III. DRAFT FINAL REP. 1975-1976, FOR B.L.M. CONTRACT NO. 08550-CT5-28.

A DETAILED REPORT ON THE DISTRIBUTION, ABUNDANCE, AND MOVEMENTS OF SEALS AND SEA LIONS THROUGHOUT THE YEAR (1975-1976) IN THE BIGHT AREA. THE STUDY CONSISTED OF A SERIES OF SURVEYS, COMBINING AERIAL CENSUSES OF ISLAND SHORELINES WITH TRANSECT SAMPLING OF OPEN WATER. THIS METHODOLOGY WAS USED TO DESCRIBE SEASONAL VARIATION IN NUMBERS WHERE PINNIPEDS FEED, BREED, OR HAUL OUT TO REST. CENSUS DATA BY AREA INCLUDES NUMBER OF MALES, FEMALES, AND PUPS OBSERVED. INCLUDES INFORMATION ON NATALITY, MORTALITY, AND DENSITY OF ANIMALS OBSERVED AT SEA IN ANIMALS PER KM². THE CONCLUSION SUMMARIZES TOTAL POPULATION SIZE, MAJOR BREEDING AREAS, MAJOR HAULING OUT AREAS, PUP PRODUCTION BY ISLAND, AND FREQUENCY OF OBSERVATIONS AT SEA. INCLUDES ZALOPHUS, PHOCA, MIROUNGA, ARCTOCEPHALUS, CALLORHINUS, AND EUMETOPIAS. CONTAINS DETAILED MAPS, GRAPHS, AND CHARTS. AN EXCELLENT SOURCE.

(D,E,M,P,R)

28. LYON, G.M. 1937. PINNIPEDS AND A SEA OTTER FROM THE POINT MUGU SHELL MOUND OF CALIFORNIA. UNIV. CALIF. PUBL. BIOL. SCI. 1(18):133-168.

LISTS PINNIPED BONES REMOVED FROM THE POINT MUGU SHELL MOUND IN VENTURA COUNTY, CALIFORNIA, CLOSE TO THE COAST OF THE SANTA BARBARA CHANNEL. CONTAINS A TABLE SHOWING THE NUMBER OF IDENTIFIED BONES, THE NUMBER OF POSSIBLE ANIMALS, AND THE PERCENTAGE OF TOTAL NUMBER OF ANIMALS. DISCUSSES THE PAST AND PRESENT STATUS OF THE SPECIES DESCRIBED. INCLUDES ARCTOCEPHALUS, CALLORHINUS, PHOCA, MIROUNGA, EUMETOPIAS, AND ZALOPHUS.

(D)

29. MARINE MAMMAL DIVISION. UNPUBLISHED PINNIPED SIGHTING DATA. U.S. DEPT. COMMER., NOAA (NMFS), NORTHWEST AND ALASKA FISHERIES CENTER, SEATTLE, WA.

THE MARINE MAMMAL DIVISION HAS AVAILABLE PINNIPED SIGHTING DATA OBTAINED DURING RESEARCH CRUISES IN CALIFORNIA WATERS SINCE 1958. SOME OF THIS DATA (1973-1976) IS AVAILABLE IN COMPUTER FORMAT AND SOME (1958-1967, 1976-PRESENT) IS IN THE PROCESS OF BEING LOGGED INTO THE SYSTEM. DATA INCLUDES DATE OF SIGHTING, TIME, POSITION, SPECIES, AND NUMBER OF ANIMALS. MOST OF THE SIGHTINGS ARE INCIDENTAL AND NO EFFORT FOR DENSITY ESTIMATION CAN BE OBTAINED.

(D)

COMPREHENSIVE

INCLUDES ZALOPHUS, EUMETOPIAS, CALLORHINUS, MIROUNGA, AND PHOCA.

30. MATE, B.R. UNPUBLISHED PINNIPED CENSUS. MARINE SCIENCE CENTER, OREGON STATE UNIV., NEWPORT, OR.

ONLY BREEDING SEASON COUNTS WERE PUBLISHED IN THE PINNIPED AERIAL SURVEY OF AUGUST 1974 - AUGUST 1975 (MATE, B.R. 1977). CENSUS DATA FOR THE NON-BREEDING SEASON WAS ALSO COLLECTED BUT HAS YET TO BE REDUCED FROM SLIDES. INCLUDES EUMETOPIAS, ZALOPHUS, MIROUNGA, PHOCA, CALLORHINUS, AND ARCTOCEPHALUS.

(D,P)

31. MATE, B.R. UNPUBLISHED 1976 PINNIPED CENSUS. MARINE SCIENCE CENTER, OREGON STATE UNIV., NEWPORT, OR.

HAS ROUGH DATA ON AN AERIAL SURVEY OF CALIFORNIA PINNIPEDS IN JUNE 1976. INCLUDES ZALOPHUS, MIROUNGA, PHOCA, EUMETOPIAS, ARCTOCEPHALUS, AND CALLORHINUS.

(D,P)

32. MOREJOHN, G.V. 1977. FEEDING ECOLOGY OF MARINE MAMMALS IN MONTEREY BAY, CALIFORNIA (ABSTRACT). PROCEEDINGS OF THE SECOND CONFERENCE ON THE BIOLOGY OF MARINE MAMMALS. SAN DIEGO, CALIF., DEC. 12-15, 1977.

STOMACH CONTENTS WERE COLLECTED FROM DEAD, BEACH CAST, OR STRANDED PINNIPEDS. INCLUDES CALLORHINUS, EUMETOPIAS, MIROUNGA, PHOCA, AND ZALOPHUS.

(D,F)

33. NISHIWAKI, M. 1967. DISTRIBUTION AND MIGRATION OF MARINE MAMMALS IN THE NORTH PACIFIC AREA. TOKYO, BULL. OF THE OCEAN RES. INST., UNIV. OF TOKYO. NO. 1. 64.P.

PAGES 8-10 CONTAIN INFORMATION ON THE DISTRIBUTION OF PINNIPEDS WITH A RANGE MAP FOR EACH SPECIES. INCLUDES ARCTOCEPHALUS, CALLORHINUS, EUMETOPIAS, MIROUNGA, PHOCA, AND ZALOPHUS.

(D)

34. PAGE, R.D. 1964. NOTES ON THE PINNIPEDIA OF SAN LUIS OBISPO COUNTY. SPECIAL GRADUATE REP., CALIF. POLYTECHNIC STATE UNIV., SAN LUIS OBISPO.

NOT SEEN. ON FILE WITH DR. A. ROEST AT THE UNIVERSITY.

35. PATTEN, D.R. UNPUBLISHED PINNIPED DATA. CURATOR OF MAMMALOGY, LOS ANGELES CTY. MUS. NAT. HIST., LOS ANGELES.

MR. PATTEN HAS SOME EXTENSIVE STRANDING RECORDS AND SOME CASUAL SIGHTING OBSERVATIONS OF PINNIPEDS IN THE SOUTHERN CALIFORNIA AREA.

(D,F)

COMPREHENSIVE

ALSO AVAILABLE ARE LIMITED DATA ON MARINE MAMMAL/FISHERIES INTERACTIONS. MOST OF THE INTERACTION DATA INVOLVE ZALOPHUS. ALMOST ALL THE DATA IS IN ROUGH OR MANUSCRIPT FORM.

36. PETERSON, R.S. AND R.L. GENTRY. 1967. BIOLOGICAL INVESTIGATION IN ANO NUEVO STATE RESERVE - ANNUAL REPORT, 1966-1967. UNIV. CALIF., SANTA CRUZ.

STUDIES WERE CONDUCTED BETWEEN OCTOBER 1966 AND OCTOBER 1967. DISCUSSES ANNUAL POPULATION CYCLES FOR MIROUNGA, ZALOPHUS, EUMETOPIAS, PHOCA, AND CALLORHINUS FOR JANUARY TO OCTOBER 1967. THE MIROUNGA POPULATION HAS BEEN INCREASING WITH 126 NEWBORN PUPS COUNTED IN FEBRUARY 1967. ZALOPHUS MALES CAME ASHORE IN LARGE NUMBERS DURING THE LATTER PART OF THE YEAR (AUGUST-OCTOBER). NOTES THE COLLECTION OF AN IMMATURE FEMALE ZALOPHUS AS THE FIRST FEMALE EVER COLLECTED AT THE ISLAND. APPROXIMATELY 1,545 EUMETOPIAS WERE COUNTED NOTING THAT MORE INDIVIDUALS HAVE BEEN REPORTED IN PREVIOUS YEARS. PHOCA IS SEEN THROUGHOUT THE YEAR IN SMALL NUMBERS. TWO CALLORHINUS MALES WERE OBSERVED ON THE ISLAND IN 1967. CONTAINS GRAPHS AND AN APPENDIX WITH A TABLE SHOWING THE NUMBER OF INDIVIDUALS OF EACH SPECIES OBSERVED ON LAND BY DATE.

(D,P,R)

37. REGENTS OF THE UNIVERSITY OF CALIFORNIA, (EDS.). 1976. DRAFT FINAL REPORT, 1975-1976 MARINE MAMMAL AND SEA BIRD SURVEY OF THE SOUTHERN CALIFORNIA BIGHT AREA. VOL. II. DETAILED SYNTHESIS. B.L.M. CONTRACT NO. 08550-CT5-28. 298 P.

CONTAINS A DETAILED REPORT ON PINNIPEDS OF SOUTHERN CALIFORNIA. INCLUDES DATA ON POPULATION SIZE, SEASONAL TRENDS IN ABUNDANCE, AND SPECIES OCCURRENCE. CENSUS AND SIGHTING DATA WAS GATHERED FOR EACH SPECIES IN THE SPRING, SUMMER, FALL, AND WINTER IN VARIOUS ZONES OF THE BIGHT. THE ZONES CONSISTED OF THE SANTA BARBARA CHANNEL, SANTA ROSA RIDGE, SANTA CRUZ BASIN, SANTA MONICA BASIN, SAN PEDRO BASIN, SAN DIEGO BASIN, SAN CLEMENTE RIDGE, TANNER-CORTES BANKS, AND THE OCEANIC ZONE. CENSUS DATA INCLUDES DISTRIBUTION ON LAND, DISTRIBUTION AT SEA, DENSITY OF ANIMALS PER KM², AND PUP COUNTS. INCLUDES ZALOPHUS, EUMETOPIAS, MIROUNGA, PHOCA, CALLORHINUS, AND ARCTOCEPHALUS. CONTAINS MAPS, CHARTS, AND GRAPHS.

(D,E,P,R)

38. RICE, D.W. 1977. A LIST OF MARINE MAMMALS OF THE WORLD. U.S. NATL. MAR. FISH. SERV., SPEC. SCI. REP. FISH. 711, 15 P.

CONTAINS A BRIEF GEOGRAPHIC DESCRIPTION OF PINNIPEDS. INCLUDES ARCTOCEPHALUS, CALLORHINUS, EUMETOPIAS, MIROUNGA, PHOCA, AND ZALOPHUS.

(D)

COMPREHENSIVE

39. RIDGWAY, S.H., J.R. GERACI, AND W. MEDWAY. 1975. DISEASES OF PINNIPEDS. PP. 327-337. IN (RONALD, K. AND A.W. MANSFIELD, EDS.), BIOLOGY OF THE SEAL. INT. COUNC. EXPLOR. SEA.(I.C.E.S.), RAPP. & P.-V. REUN., 169.

INCLUDES A BRIEF OVERVIEW OF THE REPRESENTATIVE DISEASES FOUND IN PINNIPEDS. MENTIONS DISEASES OF STRANDED PINNIPEDS AND THE OCCURRENCE OF GUNSHOT WOUNDS. INCLUDES MIROUNGA, PHOCA, AND ZALOPHUS.

(M)

40. ROEST, A.I. UNPUBLISHED PINNIPED STRANDING RECORDS. CALIF. POLYTECHNIC STATE UNIV., SAN LUIS OBISPO.

DR. ROEST HAS AVAILABLE STRANDING RECORDS FOR PINNIPEDS FROM CENTRAL CALIFORNIA. NOTES THAT SOME OF THE PINNIPEDS THAT HAVE STRANDED HAVE BEEN SHOT. INCLUDES ZALOPHUS, PHOCA, MIROUNGA, CALLORHINUS, AND EUMETOPIAS. DR. ROEST HAS SOME CENSUS DATA FOR ZALOPHUS AND PHOCA FROM CENTRAL CALIFORNIA COLLECTED OR BEING COLLECTED BY STUDENTS.

(D,F,P)

41. SCAMMON, C.M. 1968. PART II - PINNIPEDIA. PP. 113-181. IN THE MARINE MAMMALS OF THE NORTHWESTERN COAST OF NORTH AMERICA TOGETHER WITH AN ACCOUNT OF THE AMERICAN WHALE-FISHERY. NEW YORK: DOVER PUBL. INC.

CONTAINS A BRIEF OVERALL DISCUSSION ON RANGE AND GENERAL BIOLOGY. INCLUDES CALLORHINUS, MIROUNGA, PHOCA, EUMETOPIAS, AND ZALOPHUS.

(D)

42. SCHOENWALD, J. UNPUBLISHED PINNIPED STRANDING DATA. DIV. OF BIRDS AND MAMMALS, CALIF. ACAD. SCI., SAN FRANCISCO, CALIF.

THE ACADEMY HAS ON FILE A MONTHLY CARCASS SURVEY DONE BY RAY BANDAR COVERING THE AREA FROM WADDELL BEACH, SANTA CRUZ COUNTY TO ANO NUEVO POINT. THE SURVEY HAS BEEN DONE SINCE THE LATE 1950'S BUT THE ACADEMY ONLY HAS RECORDS FOR 1971-1978. INCLUDES DATA ON ZALOPHUS, MIROUNGA, EUMETOPIAS, CALLORHINUS, AND PHOCA. THE CARCASS SURVEY DATA INCLUDES DATE OF FINDING, LOCATION, SEX AND SIZE OF ANIMAL, AND NOTES IF ANIMAL WAS SHOT. CASUAL OBSERVATIONS OF LIVE ANIMALS WERE OCCASIONALLY NOTED. THE ACADEMY ALSO HAS CHARTS OF STRANDING RECORDS COVERING 13 COUNTIES OF CALIFORNIA FROM BEFORE 1920 TO PRESENT. COVERS SAME PINNIPEDS AS BANDAR'S SURVEY. THE ACADEMY HAS MORE SPECIFIC STRANDING AND SIGHTING DATA FOR CENTRAL CALIFORNIA FROM 1966-PRESENT. INFORMATION INCLUDES DATE OF SIGHTING OR STRANDING, SEX, LOCALITY, AND NOTES ANIMALS THAT WERE SHOT. COVERS SAME PINNIPEDS AS BANDAR'S SURVEY.

(D,F)

43. SHAPOVALOV, L. AND A.C. TAFT. 1954. THE LIFE HISTORIES OF THE STEELHEAD RAINBOW TROUT (*SALMO GAIRDNERI* *GAIRDNERI*) AND SILVER SALMON

COMPREHENSIVE

(ONCORHYNCHUS KISUTCH) WITH SPECIAL REFERENCE TO WADDELL CREEK, CALIFORNIA, AND RECOMMENDATIONS REGARDING THEIR MANAGEMENT. CALIF. FISH & GAME, FISH BULL. 98, 379 P.

DISCUSSES THE PRESENCE OF SEA LIONS AT THE MOUTH OF WADDELL CREEK DURING THE TIME OF ENTRY OF THE SALMON AND STEELHEAD. MENTIONS THAT SEA LIONS HAVE BEEN ACCUSED OF EXTENSIVE DEPREDACTIONS ON STEELHEAD AND SALMON BY SPORTSMEN AND COMMERCIAL FISHERMEN. A CONSIDERABLE NUMBER OF FISH TAKEN IN UPSTREAM TRAPS HAVE HAD SCARS IN THE FORM OF A "V" OR "W" POSSIBLY INDICATING ATTACKS BY SEA LIONS. SEA LIONS INCLUDE EUMETOPIAS AND ZALOPHUS. MENTIONS THAT PHOCA IS OCCASIONALLY SEEN OFF THE MOUTH OF WADDELL CREEK, BUT IS NOT BELIEVED TO BE AN IMPORTANT PREDATOR OF SALMON OR STEELHEAD.

(D,F)

44. SMITHSONIAN INSTITUTION. SEAN BULLETIN (SCIENTIFIC EVENT ALERT NETWORK). SMITHSONIAN INSTITUTION, U.S. NATL. MUS. NAT. HIST., WASH., D.C.

IN 1976 THE (SEAN) BULLETIN WAS INITIATED TO HANDLE THE COMMUNICATIONS ASPECT OF MARINE MAMMAL STRANDINGS. THE (SEAN) BULLETIN IS PUBLISHED ONCE A MONTH AND CONTAINS PINNIPED STRANDINGS FROM AROUND THE WORLD. INFORMATION INCLUDES SPECIES, LOCALITY, DATE OF STRANDING, NUMBER, SEX, AND LENGTH. IF AN ANIMAL WAS SHOT OR HIT BY A BOAT IT IS NOTED IN THE REMARKS SECTION.

(D)

45. WALKER, E.P. 1964. MAMMALS OF THE WORLD. VOL. II. BALTIMORE: THE JOHN HOPKINS PRESS.

PAGES 1283-1316 DISCUSS THE OVERALL DISTRIBUTION AND GENERAL BIOLOGY OF VARIOUS PINNIPEDS. INCLUDES EUMETOPIAS, ZALOPHUS, ARCTOCEPHALUS, CALLORHINUS, PHOCA, AND MIROUNGA.

(D)

46. WALKER, P. 1978. ARCHAEOLOGICAL EVIDENCE CONCERNING THE PREHISTORIC OCCURRENCE OF SEA MAMMALS AT POINT BENNETT, SAN MIGUEL ISLAND. CALIF. FISH & GAME. (IN PRESS).

NOT SEEN.

ARCTOCEPHALUS TOWNSENDI - GUADALUPE FUR SEAL

47. ANTONELIS, G.A. UNPUBLISHED ARCTOCEPHALUS DATA. MAR. MAM. DIV., U.S. DEPT. COMMER., NOAA (NMFS), NORTHWEST AND ALASKA FISHERIES CENTER, SEATTLE, WA.
- NOTES THE SIGHTING OF FIVE ARCTOCEPHALUS ON SAN MIGUEL ISLAND DURING THE SUMMER OF 1978. (D)
48. BARTHOLOMEW, G.A., JR. 1950. A MALE GUADALUPE FUR SEAL ON SAN NICHOLAS ISLAND, CALIFORNIA. J. MAMMAL. 31(2):175-180.
- RECORDED SIGHTING ACCOUNT IN 1949. FIRST INDIVIDUAL SEEN IN TWO DECADES. (D)
49. BARTHOLOMEW, G.A., JR. 1967. SEAL AND SEA LION POPULATIONS OF THE CALIFORNIA ISLANDS. PP. 229-244. IN (PHILBRICK, R.N., ED.), PROC. SYMP. ON THE BIOLOGY OF THE CALIFORNIA ISLANDS. SANTA BARBARA BOTANIC GARDEN.
- DISCUSSES THE PRESENT STATUS, HISTORY, AND POSSIBLE FUTURE OF GUADALUPE FUR SEALS. (D,P)
50. BARTHOLOMEW, G.A. AND C.L. HUBBS. 1960. POPULATION GROWTH AND SEASONAL MOVEMENTS OF THE NORTHERN ELEPHANT SEAL, MIROUNGA ANGUSTIROSTRIS. MAMMALIA 24:313-324.
- BRIEFLY MENTIONS POPULATION SIZE OF THE GUADALUPE FUR SEAL ON GUADALUPE ISLAND SINCE 1954. (P)
51. BONNER, W.N. 1958. NOTES ON THE SOUTHERN FUR SEAL IN SOUTH GEORGIA. PROC. ZOOL. SOC. LOND. 130(2):241-252.
- CONTAINS A DISCUSSION OF POPULATION SIZE WITH REFERENCE TO AGE OF FIRST REPRODUCTION, PREGNANCY RATE, AND MORTALITY RATES FOR ARCTOCEPHALUS AUSTRALIS. DATA MAY BE RELEVANT TO THE GUADALUPE FUR SEAL, ARCTOCEPHALUS TOWNSENDI. (M,R)
52. BONNER, W.N. 1968. THE FUR SEAL OF SOUTH GEORGIA. BRIT. ANTARCT. SURV., SCI. REP. 56, 81 P.
- AN ACCOUNT IS GIVEN OF THE GENERAL BIOLOGY AND STATUS OF THE FUR SEAL, ARCTOCEPHALUS TROPICALIS GAZELLA. INCLUDES INFORMATION ON PUP MORTALITY AND ADULT MORTALITY ASHORE. DATA MAY BE RELEVANT TO THE GUADALUPE FUR SEAL, ARCTOCEPHALUS TOWNSENDI. (M)
53. BONNER, W.N. 1976. THE STATUS OF THE ANTARCTIC FUR SEAL, ARCTOCEPHALUS GAZELLA. ADVISORY COMM. ON MAR. RESOUR. RES. U.N., F.A.O., ACMRR/MM/SC/50. 8 P. BERGEN, NORWAY, 31 AUG. - 9 SEPT. 1976.

ARCTOCEPHALUS

CONTAINS A BRIEF DISCUSSION ON THE AGE OF FIRST REPRODUCTION AND NATURAL MORTALITY RATE OF FEMALES FROM BIRTH TO BREEDING AGE. DATA MAY BE RELEVANT TO THE GUADALUPE FUR SEAL, ARCTOCEPHALUS TOWNSENDI.

(M,R)

54. BONNOT, P. 1951. THE SEAL LIONS, SEALS AND SEA OTTER OF THE CALIFORNIA COAST. CALIF. FISH & GAME 37(4):371-389.

DISCUSSES FORMER RANGE OF THE GUADALUPE FUR SEAL FROM THE FARALLON ISLANDS TO CENTRAL BAJA, CALIFORNIA AND PRESENT RANGE ON GUADALUPE ISLAND. STATES THAT BREEDING HABITS ARE PROBABLY MUCH THE SAME AS THE NORTHERN FUR SEAL.

(D)

55. BONNOT, P., G.H. CLARK, AND S.R. HATTON. 1938. CALIFORNIA SEA LION CENSUS FOR 1938. CALIF. FISH & GAME 24(4):414-419.

CONTAINS A SIGHTING RECORD OF THREE YOUNG GUADALUPE FUR SEAL BULLS AT POINT PIEDRAS BLANCAS, CALIFORNIA.

(D)

56. BROWNELL, R.L., R.L. DeLONG, AND R.W. SCHREIBER. 1974. PINNIPED POPULATIONS AT ISLAS DE GUADALUPE, SAN BENITO, CEDROS, AND NATIVIDAD, BAJA CALIFORNIA, IN 1968. J. MAMMAL. 55(2)469-472.

STATES POPULATION SIZE OF GUADALUPE FUR SEALS ON GUADALUPE ISLAND IN APRIL AND JUNE OF 1968.

(P)

57. BUREAU OF LAND MANAGEMENT. 1975. MARINE MAMMALS. PP. 407-445. IN FINAL ENVIRONMENTAL STATEMENT PROPOSED 1975 OUTERCONTINENTAL SHELF OIL AND GAS GENERAL LEASE SALE OFFSHORE SOUTHERN CALIFORNIA. VOL. 1 of 5. U.S. DEPT. INTER.

PAGES 431-445 INCLUDE INFORMATION ON RANGE, POPULATION SIZE, LIFE HISTORY, AND DISEASES OF GUADALUPE FUR SEALS. INCLUDES MAPS OF HAULING OUT AREAS.

(D,P)

58. FLEISCHER, L.A. 1978. THE DISTRIBUTION, ABUNDANCE, AND POPULATION CHARACTERISTICS OF THE GUADALUPE FUR SEAL, ARCTOCEPHALUS TOWNSENDI (MERRIAM 1897). M.SC. THESIS, UNIV. WASHINGTON. 93 P.

INCLUDES HISTORIC AND PRESENT DISTRIBUTION AND ABUNDANCE, SEX AND AGE DISTRIBUTIONS, AND REPRODUCTIVE RATES.

(D,M,P,R)

59. GOODWIN, H.A. AND C.W. HOLLOWAY. 1972. GUADALUPE FUR SEAL. CODE: 13. 109. 1. 3. V. IN RED DATA BOOK. VOL. 1. MAMMALIA. IUCN, 1110 MORGES, SWITZERLAND.

INCLUDES DATA ON STATUS, DISTRIBUTION, POPULATION SIZE, HABITAT AND CONSERVATION MEASURES.

(D,P)

ARCTOCEPHALUS

60. HAMILTON, A. 1951. IS THE GUADALUPE FUR SEAL RETURNING? NAT. HIST. 60:90-96.
- REVIEWS THE SIGHTING OF A GUADALUPE FUR SEAL ON SAN NICHOLAS ISLAND. ALSO CONTAINS A RANGE MAP. (D)
61. HUBBS, C.L. 1956. THE GUADALUPE FUR SEAL STILL LIVES. ZOONOOZ 29(12): 6-9.
- BRIEFLY DISCUSSES THE SIGHTING OF 14 GUADALUPE FUR SEALS ON GUADALUPE ISLAND IN 1954. (D)
62. KENYON, K.W. 1973. THE GUADALUPE FUR SEAL (ARCTOCEPHALUS TOWNSENDI). PP. 82-87. IN SEALS. IUCN (NEW SERIES) SUPPL. PAP. 39, 176 P.
- BRIEFLY DISCUSSES HISTORICAL AND PRESENT DISTRIBUTION, NATURAL HISTORY, POPULATION STATUS, STATUS OF HABITAT, AND CONSERVATION MEASURES FOR THE GUADALUPE FUR SEAL. MENTIONS THE SIGHTING OF THREE SEALS ON SAN MIGUEL ISLAND IN 1971. NOTES THAT THE POPULATION DOES NOT, IN 1972, EXCEED 1,000 ANIMALS. (D,P)
63. KING, J.E. 1964. SEALS OF THE WORLD. LONDON: BRITISH MUSEUM OF NATURAL HISTORY.
- PAGES 31-32 DISCUSS OVERALL DISTRIBUTION AND GENERAL BIOLOGY OF GUADALUPE FUR SEALS. INCLUDES A DISTRIBUTION MAP. (D)
64. LANDER, R.H. AND C.L. HUBBS. 1976. SPECIES DESCRIPTION GUADALUPE FUR SEAL, ARCTOCEPHALUS TOWNSENDI. F.A.O., PINNIPED SPECIES SUMMARIES, 177 P.
- PAGES 33-37 DISCUSS OVERALL DISTRIBUTION, POPULATION SIZE, TRENDS IN ABUNDANCE, AND RELATIONS TO MAN. (D,P)
65. MATE, B.R. 1977. AERIAL CENSUSING OF PINNIPEDS IN THE EASTERN PACIFIC FOR ASSESSMENT OF POPULATION NUMBERS, MIGRATORY DISTRIBUTIONS, ROOKERY STABILITY, BREEDING EFFORT, AND RECRUITMENT. MARINE MAMMAL COMMISSION REPORT MMC-75/01, NTIS PB-265 859. 67 P.
- RESULTS OF SURVEYS COVERING 21°-51° NORTH LATITUDE FROM AUGUST 1974 - AUGUST 1975 ARE REPORTED. ONLY TWO ARCTOCEPHALUS SIGHTED. (D)
66. MOREJOHN, G.V. 1977. MARINE MAMMALS. PP. 1-74. IN (WINZLER AND KELLY, CONSULTING ENGINEERS), A SUMMARY OF KNOWLEDGE OF THE CENTRAL AND NORTHERN CALIFORNIA COASTAL ZONE AND OFFSHORE AREAS. VOL. 2. BIOLOGICAL CONDITIONS. BOOK 2. B.L.M. WASH., D.C. NTIS PB 274 213/8ST.

ARCTOCEPHALUS

PAGES 11-13 INCLUDE INFORMATION ON THE DISTRIBUTION, LIFE HISTORY, BREEDING AREAS, MIGRATION, ECOLOGY, ECONOMIC IMPORTANCE AND ABUNDANCE OF GUADALUPE FUR SEALS. ALSO INCLUDES A DISTRIBUTION MAP. (D,P)

67. MOREJOHN, G.V. ARCTOCEPHALUS PHILIPPIN. MOSS LANDING MARINE LAB., MOSS LANDING, CALIF. (UNPUBL. MANUSCR.).

NOT SEEN.

68. NISHIWAKI, M. 1972. GENERAL BIOLOGY. PP. 3-204. IN (RIDGWAY, S.H., ED.), MAMMALS OF THE SEA. BIOLOGY AND MEDICINE. SPRINGFIELD, IL.: C.C. THOMAS.

PAGES 152-153 BRIEFLY DISCUSS DISTRIBUTION, REPRODUCTION, AND POPULATION SIZE OF THE GUADALUPE FUR SEAL. (D,P)

69. PETERSON, R.S. AND S.M. COOPER. 1968. A HISTORY OF THE FUR SEALS OF CALIFORNIA. UNIV. CALIF., SANTA CRUZ. ANO NUEVO REP. 2:47-54.

DISCUSSES THE HISTORICAL DISTRIBUTION, ABUNDANCE, AND EXPLOITATION OF GUADALUPE FUR SEALS.

70. PETERSON, R.S., R.L. GENTRY, AND B.J. LeBOEUF. 1968. INVESTIGATIONS OF PINNIPEDS ON SAN MIGUEL AND SAN NICHOLAS ISLANDS, FEBRUARY - MARCH, 1968. UNIV. CALIF., SANTA CRUZ. MANUSCR.

NOT SEEN. SUPPOSED TO INCLUDE SIGHTINGS OF GUAFALUPE FUR SEALS.

71. PETERSON, R.S., C.L. HUBBS, R.L. GENTRY, AND R.L. DeLONG. 1968. THE GUADALUPE FUR SEAL: HABITAT, BEHAVIOR, POPULATION SIZE, AND FIELD IDENTIFICATION. J. MAMMAL. 49(4):665-675.

DISCUSSES RANGE, REPRODUCTION, AND POPULATION SIZE ON GUADALUPE ISLAND WITH REFERENCE TO SEX RATIOS AND FREQUENCY OF ADULTS AND PUPS. (D,P,R)

72. PETERSON, R.S. AND D.H. RAMSEY. 1969. REPRODUCTIVE BEHAVIOR OF THE GUADALUPE FUR SEAL. PP. 35-42. IN SYMP.: BIOLOGICAL SONAR AND DIVING MAMMALS, PROC. 6TH ANNUAL CONF. BIOL. SONAR AND DIVING MAMMALS, OCT. 17-18, 1969. STANFORD RESEARCH INST., BIOL. SONAR LAB., MENLO PARK, CALIF.

CONTAINS A DISCUSSION OF SEX RATIOS, PARTURITION, AND MALE/FEMALE INTERACTIONS. (R)

73. RAND, R.W. 1955. REPRODUCTION IN THE FEMALE CAPE FUR SEAL, ARCTOCEPHALUS PUSILLUS (SCREBER). PROC. ZOOL. SOC. LOND. 124:717-740.

AN ACCOUNT OF THE BREEDING CYCLE IS GIVEN BASED ON THE EXAMINATION OF 184 SPECIMENS. INCLUDES DATA ON MATING, THE MATURE FEMALE, FIRST PREGNANCY, AND FERTILITY. MAY BE RELEVANT TO THE GUADALUPE FUR SEAL, ARCTOCEPHALUS TOWNSENDI. (R)

ARCTOCEPHALUS

74. REPENNING, C.A., R.S. PETERSON, AND C.L. HUBBS. 1971. CONTRIBUTIONS TO THE SYSTEMATICS OF THE SOUTHERN FUR SEALS, WITH PARTICULAR REFERENCE TO THE JUAN FERNANDEZ AND GUADALUPE SPECIES. PP. 1-34. IN (BURT, W.H., ED.), ANTARCTIC PINNIPEDIA. ANTARCT. RES. SER. 18, AM. GEOPHYS. UNION.
- INCLUDES A DISTRIBUTION MAP FOR ARCTOCEPHALUS TOWNSENDI. (D)
75. RICE, D.W. 1963. THE WHALE MARKING CRUISE OF THE SIOUX CITY OFF CALIFORNIA AND BAJA CALIFORNIA. NORSK HVAL-TID. 52(6):153-160.
- CONTAINS A SIGHTING RECORD OF GUADALUPE FUR SEALS ON THE EAST SIDE OF GUADALUPE ISLAND IN NOVEMBER 1962. (D)
76. RICE, D.W., K.W. KENYON, AND D. LLUCH B. 1965. PINNIPED POPULATIONS AT ISLAS GUADALUPE, SAN BENITO, AND CEDROS, BAJA CALIFORNIA, IN 1965. SAN DIEGO SOC. NAT. HIST., TRANS. 14(7):73-84.
- CONTAINS CENSUS DATA OF GUADALUPE FUR SEALS BASED ON BOAT AND GROUND COUNTS. INCLUDES NUMBER OF PUPS PRESENT. (D,P,R)
77. SCHEFFER, V.B. 1958. SEALS, SEA LIONS, AND WALRUSES. A REVIEW OF THE PINNIPEDIA. STANFORD, CA.: STANFORD UNIV. PRESS. 179 P.
- PAGES 80-82 DISCUSSS OVERALL RANGE OF THE GUADALUPE FUR SEAL. INCLUDES DISTRIBUTION MAP ON PAGE 79. (D)
78. TOWNSEND, C.H. 1931. THE FUR SEAL OF THE CALIFORNIA ISLANDS WITH NEW DESCRIPTIVE AND HISTORICAL MATTER. ZOOLOGICA 9:443-457.
- PRESENTS AN HISTORICAL REVIEW OF THE DEMISE OF THE GUADALUPE FUR SEAL OFF THE COAST OF CALIFORNIA. (D)
79. U.S. DEPARTMENT OF COMMERCE. 1978. REPORT OF THE SECRETARY OF COMMERCE ON ADMINISTRATION OF THE MARINE MAMMAL PROTECTION ACT OF 1972. ANNUAL REPORT, APRIL 1, 1977, TO MARCH 31, 1978. PREPARED BY NOAA/NMFS. 183 P.
- PAGES 59-60 DISCUSS OVERALL DISTRIBUTION, ABUNDANCE, AND REPRODUCTIVE DATA FOR THE GUADALUPE FUR SEAL. (D,P,R)
80. U.S. GEOLOGICAL SURVEY. 1976. MARINE MAMMALS. PP. 303-320. IN FINAL ENVIRONMENTAL STATEMENT OIL AND GAS DEVELOPMENT IN THE SANTA BARBARA CHANNEL OUTER CONTINENTAL SHELF OFF CALIFORNIA. VOL. 2 OF 3. U.S. DEPT. INTER.

ARCTOCEPHALUS

PAGE 305 STATES POPULATION SIZE OF GUADALUPE FUR SEALS OFF THE CALIFORNIA COAST. PAGE 318 CONTAINS A CHART OF THE APPROXIMATE TIMES OF GUADALUPE FUR SEAL ACTIVITY ON THE SANTA BARBARA CHANNEL ISLANDS.

(P)

81. WARNEKE, R.M. 1975. DISPERSAL AND MORTALITY OF JUVENILE FUR SEALS ARCTOCEPHALUS PUSILLUS DORIFERUS IN BASS STRAIT, SOUTHEASTERN AUSTRALIA. PP. 296-302. IN (RONALD, K. AND A.W. MANSFIELD, EDS.) , BIOLOGY OF THE SEAL. INT. COUNC. EXPLOR. SEA, (I.C.E.S.), RAPP. & P.-V. REUN., 169.

CONTAINS NATURAL MORTALITY DATA THAT MAY BE PERTINENT TO ARCTOCEPHALUS TOWNSENDI.

(M)

82. WEBBER, M. UNPUBLISHED ARCTOCEPHALUS PAPER. CALIF. MARINE MAMMAL CENTER, MARIN HEADLANDS RANGER STATION, FORT CRONKITE, CA.

DISCUSSES THE STRANDING OF AN ARCTOCEPHALUS NEAR FORT ORD, MONTEREY COUNTY, CALIFORNIA IN 1977. THIS IS THE NORTHERNMOST RECORD OF A LIVE ARCTOCEPHALUS EVER RECORDED. ANIMAL DIED SHORTLY AFTER IT WAS DISCOVERED.

(D)

CALLORHINUS URSINUS - NORTHERN FUR SEAL

83. ABEGGLEN, C.E. AND A.Y. ROPPEL. 1959. FERTILITY IN THE NORTHERN FUR SEAL, 1956-57. J. WILDL. MANAGE. 23(1):75-81.

DISCUSSES FREQUENCY OF PREGNANCY AND REPRODUCTIVE CONDITION OF SEALS BY AGE. (R)

84. ABEGGLEN, C.E., A.Y. ROPPEL, A.M. JOHNSON, AND F. WILKE. 1961. FUR SEAL INVESTIGATIONS, PRIBILOF ISLANDS, ALASKA. U.S. FISH WILDL. SERV., BUR. COMMER., FISH., SECTION OF MAR. MAM. RES. SEATTLE, WA. VIII + 148 P.

AGE DETERMINATIONS AND GENITAL-TRACT EXAMINATIONS WERE CONDUCTED ON 4,340 FEMALES TAKEN FROM JUNE-AUGUST 1961. DATA INCLUDES REPRODUCTIVE CONDITION OF SEALS BY AGE, PREGNANCY RATES, AND A COMPARISON OF ANNUAL VARIATIONS IN PREGNANCY RATES, BY AGE AND ISLAND, FOR 1956-1961. ALSO DISCUSSES MORTALITY, FACTORS AFFECTING MORTALITY, AND TRENDS IN MORTALITY. (M,R)

85. ABEGGLEN, C.E., A.Y. ROPPEL, AND F. WILKE. 1958. ALASKA FUR SEAL INVESTIGATIONS, PRIBILOF ISLANDS, ALASKA. U.S. FISH WILDL. SERV., BUR. COMMER. FISH., SECTION OF MAR. MAM. RES. SEATTLE, WA. VIII + 187 P.

AGE DETERMINATIONS AND GENITAL-TRACT EXAMINATIONS WERE CONDUCTED ON 5,933 FEMALES TAKEN FROM JUNE-AUGUST 1958. DATA INCLUDES REPRODUCTIVE CONDITION OF SEALS BY AGE, PREGNANCY RATES, AND STATES THE AGE OF MAXIMUM PRODUCTIVITY FOR ST. PAUL ISLAND AS SEVEN AND FOR ST. GEORGE ISLAND AS EIGHT. ALSO DISCUSSES MORTALITY, FACTORS INVOLVING MORTALITY SUCH AS WEATHER, AND TRENDS IN MORTALITY. (M,R)

86. ABEGGLEN, C.E., A.Y. ROPPEL, AND F. WILKE. 1959. ALASKA FUR SEAL INVESTIGATIONS, PRIBILOF ISLANDS, ALASKA. U.S. FISH WILDL. SERV., BUR. COMMER. FISH., SECTION OF MAR. MAM. RES. SEATTLE, WA. VI + 132 P.

AGE DETERMINATIONS AND GENITAL-TRACT EXAMINATIONS WERE CONDUCTED ON 5,166 FEMALES TAKEN FROM JUNE-AUGUST 1959. DATA INCLUDES REPRODUCTIVE CONDITION OF SEALS BY AGE, PREGNANCY RATES, AND STATES THAT PEAK REPRODUCTIVE CAPACITY IS REACHED AT AGES 6, 7 AND 8, FOLLOWED BY A DECLINE. INCLUDES A TABLE WITH A COMPARISON OF THE REPRODUCTIVE CONDITION OF SEALS FOR 1956-1959. ALSO DISCUSSES MORTALITY, FACTORS INVOLVING MORTALITY SUCH AS WEATHER, AND TRENDS IN MORTALITY. (M,R)

87. AINLEY, D.G., H.R. HUBER, R.P. HENDERSON, AND T.J. LEWIS. 1977. STUDIES OF MARINE MAMMALS AT THE FARALLON ISLANDS, CALIFORNIA, 1970-1975. MARINE MAMMAL COMMISSION REPORT MMC-74/04, NTIS PB 274 046. 42 P.

CALLORHINUS

MENTIONS THAT AT LEAST ONE NORTHERN FUR SEAL HAS BEEN SEEN EVERY OTHER YEAR SINCE 1970. (D)

88. AINLEY, D.G., H.R. HUBER, R.P. HENDERSON, T.J. LEWIS, AND S.H. MORRELL. 1977. STUDIES OF MARINE MAMMALS AT THE FARALLON ISLANDS, CALIFORNIA, 1975-76. MARINE MAMMAL COMMISSION REPORT MMC-75/02, NTIS PB 266 249. 32 P.

INDIVIDUAL NORTHER FUR SEAL SEEN HAULED OUT IN AUGUST OF 1976. (D)

89. AINLEY, D.G., H.R. HUBER, S.H. MORRELL, AND R.H. LEVALLEY. 1978. STUDIES AT THE FARALLON ISLANDS, 1977. FINAL REP., MARINE MAMMAL COMM., CONTRACT NO. M16AC027, WASH., D.C.

NOT SEEN.

90. AMERICAN SOCIETY OF MAMMALOGISTS. 1971. REPORT OF STANDING COMMITTEE, MARINE MAMMALS 1970-1971. IN AMERICAN SOCIETY OF MAMMALOGISTS, 51ST ANNU. MEET. AM. SOC. MAMMAL., SEATTLE, WA. 46 P.

PAGE 13 BRIEFLY DISCUSSES THE NORTHERN FUR SEAL COLONY ON SAN MIGUEL ISLAND. INCLUDES MORTALITY RATES IN 1969 AND 1970. (M)

91. AMERICAN SOCIETY OF MAMMALOGISTS. 1973. REPORT OF STANDING COMMITTEE, MARINE MAMMALS 1972-1973. IN AMERICAN SOCIETY OF MAMMALOGISTS, 53RD ANNU. MEET. AM. SOC. MAMMAL., ASILOMAR, CA, 13-17 JUNE 1973. SEATTLE, WA. 43 P.

NOTES THE DISCOVERY OF A NEW BREEDING COLONY OF NORTHERN FUR SEALS ON A ROCKY ISLET 2 MILES NORTH OF SAN MIGUEL ISLAND. INCLUDES TOTAL POPULATION SIZE ON BOTH ROOKERIES WITH REFERENCE TO FREQUENCY OF ADULTS AND CALVES. (D,P,R)

92. AMERICAN SOCIETY OF MAMMALOGISTS. 1974. REPORT OF STANDING COMMITTEE, MARINE MAMMALS 1973-1974. IN AMERICAN SOCIETY OF MAMMALOGISTS, 54TH ANNU. MEET. AM. SOC. MAMMAL., BINGHAMTON, NY, 1-4 JUNE 1974. EDMONTON, ALBERTA. 31 P.

PAGES 11-12 DISCUSS THE TOTAL POPULATION SIZE OF NORTHERN FUR SEALS ON SAN MIGUEL ISLAND ROOKERIES. INCLUDES FREQUENCY OF ADULTS AND CALVES AND NUMBER OF DEAD PUPS COUNTED. (M,P,R)

93. AMERICAN SOCIETY OF MAMMALOGISTS. 1975. REPORT OF STANDING COMMITTEE, MARINE MAMMALS 1974-1975. IN AMERICAN SOCIETY OF MAMMALOGISTS, 55TH ANNU. MEET. AM. SOC. MAMMAL., MISSOULA, MT, 16-19 JUNE 1975. EDMONTON, ALBERTA. 36 P.

CALLORHINUS

PAGES 10-11 DISCUSS NORTHERN FUR SEAL POPULATION SIZE ON SAN MIGUEL ISLAND ROOKERIES. INCLUDES FREQUENCY OF ADULTS AND CALVES AND THE NUMBER OF DEAD PUPS COUNTED ON THE CASTLE ROCK ROOKERY. (M,P,R)

94. AMERICAN SOCIETY OF MAMMALOGISTS. 1976. REPORT OF STANDING COMMITTEE, MARINE MAMMALS 1975-1976. IN AMERICAN SOCIETY OF MAMMALOGISTS, 56TH ANNU. MEET. AM. SOC. MAMMAL., LUBBOCK, TX, JUNE 1976. EDMONTON, ALBERTA. 30 P.

PAGES 10-11 DISCUSS NORTHERN FUR SEAL POPULATION SIZE ON SAN MIGUEL ISLAND ROOKERIES. INCLUDES FREQUENCY OF ADULTS AND CALVES AND NUMBER OF DEAD PUPS COUNTED. MENTIONS THAT THE NUMBER OF PUPS BORN INCREASED BY 100% FROM 1973-74, AND BY 39% FROM 1974-75. (M,P,R)

95. AMERICAN SOCIETY OF MAMMALOGISTS. 1977. REPORT OF STANDING COMMITTEE, MARINE MAMMALS 1976-1977. IN AMERICAN SOCIETY OF MAMMALOGISTS, 57TH ANNU. MEET. AM. SOC. MAMMAL., EAST LANSING, MI, JUNE 1977. EDMONTON, ALBERTA. 32 P.

PAGE 10 MENTIONS THAT PUP PRODUCTION INCREASED ON THE ADAM'S COVE, SAN MIGUEL ISLAND ROOKERY FROM 329 IN 1975 TO 417 IN 1976 AND ON THE CASTLE ROCK ROOKERY FROM 396 IN 1975 TO 521 IN 1976. (P,R)

96. ANONYMOUS. 1968. SEALS COME SOUTH. NATURE, (LONDON), 219(5157): 892-893.

BRIEFLY DISCUSSES THE STATUS OF NORTHERN FUR SEALS. MENTIONS OVERALL POPULATION SIZE AND HOW MANY PUPS PER YEAR ARE PRODUCED. (P)

97. ARSENIYEV, V.A. 1968. REPORT ON FUR SEAL INVESTIGATIONS OF THE U.S.S.R. PAC. RES. INST. OF FISH. AND OCEAN. (TINRO), ALL-UNION RES. INST. OF MARINE FISH. AND OCEAN. (VNIRO), MOSCOW, 1968. IV + 100 P.

DETAILED DISCUSSION OF RESEARCH CONDUCTED IN THE SEA OF JAPAN AND THE BERING SEA. INCLUDES SEX AND AGE DISTRIBUTIONS, REPRODUCTIVE RATES, AND NUMBER AND NATURAL MORTALITY OF PUPS. (M,R)

98. ARSENIYEV, V.A. 1969. REPORT ON FUR SEAL INVESTIGATIONS OF THE U.S.S.R. PAC. RES. INST. OF FISH. AND OCEAN. (TINRO), ALL-UNION RES. INST. OF MARINE FISH. AND OCEAN. (VNIRO), MOSCOW, 1969. V + 66 P.

DETAILED DISCUSSION OF RESEARCH CONDUCTED ON ROBBEN AND COMMANDER ISLANDS. INCLUDES DATA ON THE NUMBER AND NATURAL MORTALITY OF PUPS, SEX AND AGE COMPOSITIONS, AND POPULATION DYNAMICS OF BULLS. (M,R)

CALLORHINUS

99. ARSENIIEV, V.A. 1970. REPORT ON FUR SEAL INVESTIGATIONS OF THE U.S.S.R. PAC. RES. INST. OF FISH. AND OCEAN. (TINRO), ALL-UNION RES. INST. OF MARINE FISH. AND OCEAN. (VNIRO), MOSCOW, 1970. V + 84 P.

DETAILED DISCUSSION OF RESEARCH CONDUCTED IN THE PACIFIC OCEAN, BERING SEA, AND ON ROBBEN AND COMMANDER ISLANDS. INCLUDES DATA ON DISTRIBUTION, SEX AND AGE COMPOSITIONS, NUMBER OF PUPS BORN, PUP MORTALITY, MORTALITY IN OTHER AGE GROUPS, AND PREGNANCY RATES.

(M,R)

100. ARSENIIEV, V.A. 1971. REPORT ON FUR SEAL INVESTIGATIONS OF THE U.S.S.R. PAC. RES. INST. OF FISH. AND OCEAN. (TINRO), ALL-UNION RES. INST. OF MARINE FISH. AND OCEAN. (VNIRO), MOSCOW, 1971. VII + 91 P.

DETAILED DISCUSSION OF RESEARCH CONDUCTED PELAGICALLY IN THE SEA OF JAPAN AND PACIFIC OCEAN AND ON LAND ON ROBBEN AND COMMANDER ISLANDS. INCLUDES DATA ON THE NUMBER OF PUPS BORN, PUP MORTALITY, MORTALITY IN OTHER AGE GROUPS, AGE AND SEX DISTRIBUTIONS, AND PREGNANCY RATES.

(M,R)

101. ARSENIIEV, V.A. 1972. REPORT ON FUR SEAL INVESTIGATIONS OF THE U.S.S.R. PAC. RES. INST. OF FISH. AND OCEAN. (TINRO), ALL-UNION RES. INST. OF MARINE FISH. AND OCEAN. (VNIRO), MOSCOW, 1973. VI + 81 P.

SEE (ARSENIIEV, 1971).

(M,R)

102. BAKER, R.C., F. WILKE, AND C.H. BALTZO. 1963. THE NORTHERN FUR SEAL. U.S. FISH. WILDL. SERV., CIRC. 169, 19 P.

DISCUSSES DISTRIBUTION AND MOVEMENTS OFF CALIFORNIA, AGE OF FIRST REPRODUCTION, PREGNANCY RATE, MORTALITY RATE, AND OVERALL POPULATION SIZE AND PUP PRODUCTION. MOST OF THE INFORMATION IS BASED ON STUDIES CONDUCTED ON THE PRIBILOF ISLANDS.

(D,M,P,R)

103. BAKER, R.C., F. WILKE, AND C.H. BALTZO. 1970. THE NORTHERN FUR SEAL U.S. FISH WILDL. SERV., CIRC. 336, 19 P.

DISCUSSES DISTRIBUTION AND MOVEMENTS OFF CALIFORNIA, PREGNANCY RATES BY AGE, MORTALITY RATES, AND OVERALL POPULATION SIZE.

(D,M,P,R)

104. BALDRIGE, A. 1971. OBSERVATIONS OF MARINE MAMMALS, 1970. PP. 47-49. IN STANFORD UNIV. HOPKINS MAR. STN., PAC. GROVE, CA, ANN. REP., 1970. CALCOFI HYDROGRAPHIC DATA.

CONTAINS A SIGHTING RECORD OF A NORTHERN FUR SEAL AT THE MOUTH OF MONTEREY CANYON. INCLUDES CRUISE TRACK AND DATES FOR EFFORT RECORD.

(D,E)

CALLORHINUS

105. BALDRIDGE, A. 1972. MONTEREY BAY REGION MARINE MAMMAL OBSERVATIONS, 1971. PP. 57-60. IN STANFORD UNIV. HOPKINS MAR. STN., PAC. GROVE, CA, ANN. REP., 1971. CALCOFI HYDROGRAPHIC DATA.

CONTAINS THREE SIGHTINGS OF NORTHERN FUR SEALS. INCLUDES CRUISE TRACK AND DATES FOR EFFORT RECORD. (D,E)

106. BALDRIDGE, A. 1973. MONTEREY BAY REGION MARINE MAMMAL OBSERVATIONS, 1972. PP. 30-33. IN STANFORD UNIV. HOPKINS MAR. STN., PAC. GROVE, CA, ANN. REP., 1972. CALCOFI HYDROGRAPHIC DATA.

CONTAINS TWO SIGHTINGS OF NORTHERN FUR SEALS. INCLUDES CRUISE TRACK AND DATES FOR EFFORT RECORD. (D,E)

107. BARTHOLOMEW, G.A., JR. 1967. SEAL AND SEA LION POPULATIONS OF THE CALIFORNIA ISLANDS. PP. 229-244. IN (PHILBRICK, R.N., ED.), PROC. SYMP. ON THE BIOLOGY OF THE CALIFORNIA ISLANDS. SANTA BARBARA BOTANIC GARDEN.

BRIEFLY MENTIONS THE OCCURRENCES OF NORTHERN FUR SEALS IN CALIFORNIA WATERS. (D)

108. BARTHOLOMEW, G.A. 1970. A MODEL FOR THE EVOLUTION OF PINNIPED POLYGYNY. EVOLUTION 24:546-559.

INCLUDES MORTALITY AND REPRODUCTIVE RATES FOR NORTHERN FUR SEALS. (M,R)

109. BARTHOLOMEW, G.A. AND P.G. HOEL. 1953. REPRODUCTIVE BEHAVIOR OF THE ALASKA FUR SEAL, CALLORHINUS URSINUS. J. MAMMAL. 34(4): 417-436.

CONTAINS INFORMATION OF THE NUMBER OF FEMALES IN A HAREM, THE RATIO OF BREEDING FEMALES TO HAREM MAINTAINING MALES, AND DISCUSSES THE PREGNANCY RATE OF FEMALES 6-10 YEARS OF AGE. (R)

110. BIGG, M.A. AND I.B. MacASKIE. 1975. REPORT ON CANADIAN PELAGIC FUR SEAL RESEARCH IN 1973-74. FISH. RES. BD. CAN., MANUSCR. REP. SER. NO. 1337, 20 P. PAC. BIOL. STN., NANAIMO, B.C. (UNPUBL.).

CONTAINS A BRIEF DISCUSSION OF RESEARCH CONDUCTED OFF VANCOUVER ISLAND AND WASHINGTON AND IN UNIMAK PASS, ALASKA. INCLUDES DISTRIBUTION, SEARCHING EFFORT, AGE AND SEX COMPOSITIONS, REPRODUCTIVE RATES, FEEDING HABITS, AND GROWTH. (R)

111. BONNOT, P. 1951. THE SEA LIONS, SEALS AND SEA OTTERS OF THE CALIFORNIA COAST. CALIF. FISH & GAME 37(4):371-389.

BRIEFLY DISCUSSES DISTRIBUTION AND MIGRATION OF NORTHERN FUR SEALS. (D)

CALLORHINUS

112. BRAHAM, H.W. 1974. THE CALIFORNIA SEA LION ON ISLANDS OFF THE COAST OF SAN LUIS OBISPO COUNTY, CALIFORNIA, U.S.A. CALIF. FISH & GAME 60(2):79-83.

ONE ADULT NORTHERN FUR SEAL WAS SEEN AMONGST CALIFORNIA SEA LIONS AT PECHO ROCK IN JUNE 1971. (D)

113. BROOKS, A. 1937. FUR SEALS OFF CALIFORNIA. J. MAMMAL. 18:99.

RECORDED SIGHTINGS OF NORTHERN FUR SEALS OFF SANTA CRUZ, CALIFORNIA. (D)

114. BUREAU OF LAND MANAGEMENT. 1975. MARINE MAMMALS. PP. 407-445. IN FINAL ENVIRONMENTAL STATEMENT PROPOSED 1975 OUTER CONTINENTAL SHELF OIL AND GAS GENERAL LEASE SALE OFFSHORE SOUTHERN CALIFORNIA. VOL. 1 OF 5. U.S. DEPT. INTER.

PAGES 429-445 INCLUDE INFORMATION ON THE RANGE, POPULATION SIZE, LIFE HISTORY, AND DISEASES OF NORTHERN FUR SEALS. INCLUDES MAPS OF BREEDING AND HAULING OUT GROUNDS. (D,M,P)

115. CHAPMAN, D.G. 1961. POPULATION DYNAMICS OF THE ALASKA FUR SEAL HERD. TRANS. N. AM. WILDL. NAT. RESOUR. CONF. 26:356-369.

INFORMATION BASED ON RESEARCH CONDUCTED ON THE PRIBILOF ISLANDS. INCLUDES MORTALITY AND PREGNANCY RATES. (M,R)

116. CHAPMAN, D.G. 1964. A CRITICAL STUDY OF PRIBILOF FUR SEAL POPULATION ESTIMATES. U.S. FISH WILDL. SERV., FISH. BULL. 63(3):657-669.

DISCUSSES MORTALITY AND PREGNANCY RATES. (M,R)

117. CLARK, G.A. 1913. THE FUR SEAL CENSUS FOR 1913. SCIENCE, (NEW YORK), 38(991):918-919.

CONTAINS A COMPARISON OF CENSUS DATA FOR 1912 AND 1913 ON THE PRIBILOF ISLANDS. COUNTS DIVIDED INTO SEX AND AGE CLASSES. (P)

118. CLARK, G.A. 1916. THE CENSUS OF FUR SEALS, 1914 AND 1915. SCIENCE, (NEW YORK), 44(1139):608-609.

CONTAINS A COMPARISON OF CENSUS DATA FOR 1913, 1914, AND 1915 ON THE PRIBILOF ISLANDS. COUNTS DIVIDED INTO SEX AND AGE CLASSES. (P)

119. CRAIG, A.M. 1964. HISTOLOGY OF REPRODUCTION AND THE ESTRUS CYCLE IN THE FEMALE FUR SEAL, CALLORHINUS URSINUS. J. FISH. RES. BD. CAN. 21:773-811.

DETAILED DISCUSSION OF THE FEMALE REPRODUCTIVE CYCLE WITH REFERENCE TO PRE-NATAL MORTALITY. (M,R)

CALLORHINUS

120. DeLONG, R.L. AND A.M. JOHNSON. 1972. THE NORTHERN FUR SEAL COLONY ON SAN MIGUEL ISLAND: A PROGRESS REPORT OF THE POPULATION FOR THE 1969, 1970 AND 1971 SEASONS. MAR. MAM. DIV., U.S. DEPT. COMMER., NOAA(NMFS), NORTHWEST AND ALASKA FISHERIES CENTER, SEATTLE, WA.

RESULTS OF STUDIES CONDUCTED AT ADAM'S COVE TO DETERMINE POPULATION SIZE, AGE STRUCTURE, PUP PRODUCTION, AND MORTALITY ARE PRESENTED. DATA INCLUDES DAILY CENSUSES FROM MAY-NOVEMBER FOR 1969, 70, AND 71. CENSUS DATA INCLUDES NUMBER OF ADULT MALES, BACHELORS, NURSING AND NON-NURSING FEMALES, AND NUMBER OF PUPS PRESENT. MENTIONS THAT TWO OF THE 28 PUPS BORN DIED IN 1969, AND IN 1970 AND 1971, 14 OF 33 AND 15 OF 45 PUPS BORN DIED. (M,P,R)

121. EVERMANN, B.W. 1921. FUR SEALS OFF THE FARALLONS. SCIENCE, (NEW YORK), 54:547-548.

RECORDED SIGHTINGS OF NORTHERN FUR SEALS IN 1917 AND 1920. (D)

122. FAR SEAS FISHERIES RESEARCH LAB. 1969. JAPANESE PELAGIC INVESTIGATIONS ON FUR SEALS, 1968. FAR SEAS FISH. RES. LAB., FISH. AGENCY. 40 P.

DETAILED ACCOUNT OF RESEARCH CONDUCTED IN THE WESTERN NORTH PACIFIC OFF NORTHERN JAPAN. INCLUDES DATA ON DISTRIBUTION, AGE AND SEX COMPOSITIONS, SEX RATIOS BY AGE, REPRODUCTIVE CONDITIONS BY AGE AND MONTH, PREGNANCY RATES BY AGE, AND FEEDING HABITS. (R)

123. FISCUS, C.H. 1977. A SUMMARY OF INFORMATION ON THE PACIFIC HAKE, MERLUCCIIUS PRODUCTUS, THE FISHERY AND MARINE MAMMALS. MARINE MAMMAL DIVISION, NORTHWEST ALASKA FISHERIES CENTER FOR THE MARINE MAMMAL/FISHERIES WORKSHOP, 19-20 DEC. 1977, SEATTLE, WA. 25 P.

DISCUSSES THE BIOLOGY, FEEDING HABITS, RANGE, POPULATION SIZE, AND COMMERCIAL FISHERY FOR HAKE. INCLUDES INFORMATION ON THE OVERALL DISTRIBUTION OF THE NORTHERN FUR SEAL, THEIR ESTIMATED POPULATION SIZE IN HAKE RANGE, TOTAL POPULATION SIZE, AND THEIR RELATIONSHIP TO HAKE. (D,F,P)

124. FISCUS, C.H., G.A. BAINES, AND H. KAJIMURA. 1965. PELAGIC FUR SEAL INVESTIGATIONS, ALASKA, 1963. U.S. FISH WILDL. SERV., SPEC. SCI. REP. FISH. 489, IV + 33 P.

DISCUSSES AGE AND SEX DISTRIBUTIONS, SIZE AND REPRODUCTIVE CONDITION OF FEMALES INCLUDING PREGNANCY RATE, AND FOOD HABITS. INCLUDES A CHART SHOWING GROUPING OF SEALS SIGHTED FROM CALIFORNIA TO ALASKA ON PAGE 5. (D,R)

CALLORHINUS

125. FISCUS, C.H., G.A. BAINES, AND F. WILKE. 1964. PELAGIC FUR SEAL INVESTIGATIONS, ALASKA WATERS, 1962. U.S. FISH WILDL. SERV., SPEC. SCI. REP. FISH. 475, iii + 59 P.

DISCUSSES AGE AND SEX DISTRIBUTIONS, SIZE AND REPRODUCTIVE CONDITION OF FEMALES INCLUDING PREGNANCY RATES, AND FOOD HABITS. (R)

126. FISCUS, C.H. AND H. KAJIMURA. 1965. PELAGIC FUR SEAL INVESTIGATIONS, 1964. U.S. FISH. WILDL. SERV., SPEC. SCI. REP. FISH. 522, 47 P.

CONTAINS A BRIEF DISCUSSION OF DISTRIBUTION BY AGE AND SEX OFF CALIFORNIA. MENTIONS PREGNANCY RATES AND THE RELATIONSHIP OF FUR SEALS TO COMMERCIAL FISHERIES. CONTAINS SURVEY EFFORT INCLUDING MAPS OF AREA TRANSECTED, NUMBER OF SEALS OBSERVED, AND NUMBER OF SEALS COLLECTED PER BOAT HUNTING DAY. (D,E,F,R)

127. FISCUS, C.H. AND H. KAJIMURA. 1967. PELAGIC FUR SEAL INVESTIGATIONS, 1965. U.S. FISH. WILDL. SERV., SPEC. SCI. REP. FISH. 537, IV + 42 P.

CONTAINS A BRIEF DISCUSSION OF DISTRIBUTION BY AGE AND SEX OFF CALIFORNIA. MENTIONS PREGNANCY RATES AND THE RELATIONSHIP OF FUR SEALS TO COMMERCIAL FISHERIES. CONTAINS SURVEY EFFORT INCLUDING MAPS OF AREA TRANSECTED, NUMBER OF SEALS OBSERVED, AND NUMBER OF SEALS COLLECTED PER BOAT HUNTING DAY. (D,E,F,R)

128. FISCUS, C.H., K. NIGGOL, AND F. WILKE. 1961. PELAGIC FUR SEAL INVESTIGATIONS, CALIFORNIA TO BRITISH COLUMBIA, 1961. U.S. FISH. WILDL. SERV., BUR. COMMER. FISH., SECTION OF MAR. MAM. RES. SEATTLE, WA. 87 P.

RESULTS OF RESEARCH CONDUCTED FROM NOVEMBER 1960 - APRIL 1961 ARE PRESENTED. INCLUDES A MAP WITH THE DISTRIBUTION OF SEALS OBSERVED AND COLLECTED FROM 32° NORTH LATITUDE TO 43° NORTH LATITUDE. CONTAINS A POSSIBLE EFFORT RECORD BASED ON THE NUMBER OF SEALS SEEN PER BOAT HUNTING DAY. THE OVERALL PREGNANCY RATE FOR FEMALES COLLECTED OFF CALIFORNIA FOUR YEARS OF AGE AND OLDER WAS 68.5%. THE MOST IMPORTANT FOOD ITEM IN SEALS TAKEN OFF CALIFORNIA WAS SQUID. (D,E,F,P)

129. FISHERIES RESEARCH BOARD OF CANADA. 1958-1975. REPORTS ON CANADIEN PELAGIC FUR SEAL RESEARCH, 1958-1974. FISH RES. BD. CAN., BIOL. STN., NANAIMO, B.C.

NOT SEEN. ANNUAL REPORTS FROM 1958-1975. SUPPOSED TO INCLUDE DATA ON DISTRIBUTION, POPULATION DYNAMICS, AND REPRODUCTION. SEE ANNOTATION UNDER NORTHERN FUR SEAL: (BIGG AND MacASKIE, 1975).

CALLORHINUS

130. HALL, R.E. 1940. PRIBILOF FUR SEAL ON CALIFORNIA COAST. CALIF. FISH & GAME 26:76-77.
- BRIEF ACCOUNT OF A FEMALE SEAL ASHORE IN CRESCENT CITY, CALIFORNIA. (D)
131. HANNA, G.D. 1951. ALASKA FUR SEALS, CALLORHINUS URSINUS, OBSERVED OFF SAN FRANCISCO BAY, CALIFORNIA. J. MAMMAL. 32(3):364-365.
- RECORDED SIGHTINGS WITH POSSIBLE SURVEY EFFORT BASED ON FIELD REPORTS INCLUDING DATES, POSITIONS, AND COASTAL REFERENCE POINTS. (D,E)
132. ICHIHARA, T. 1974. COMMENTS ON NATURAL MORTALITY RATE OF ADULT FEMALE FUR SEALS OF ROBBEN ISLAND ORIGIN. FAR SEAS FISH. RES. LAB., BULL. 11:21-31.
- BRIEF DISCUSSION OF NATURAL MORTALITY RATE AND ITS MUTUAL RELATIONSHIP TO PUP INCREMENT, PREGNANCY RATE, AND SURVIVOR RATE OF YOUNG FEMALES. (M,R)
133. ICHIHARA, T. 1974. POSSIBLE EFFECT OF SURFACE WIND FORCE ON THE SEX-SPECIFIC MORTALITY OF YOUNG FUR SEALS IN THE EASTERN PACIFIC. FAR SEAS FISH. RES. LAB., BULL. 11:1-8.
- BRIEF DISCUSSION OF NATURAL MORTALITY ASSOCIATED WITH WEATHER CONDITIONS. (M)
134. ICHIHARA, T., N. OKUMOTO, AND K. YOSHIDA. 1973. JAPANESE PELAGIC INVESTIGATIONS ON FUR SEALS, 1972. FUR SEALS RES. SECTION, SUBM. TO THE 16TH MEET. OF THE N. PAC. FUR SEAL COMM., TOKYO. 70 P.
- DETAILED ACCOUNT OF RESEARCH CONDUCTED IN THE WESTERN NORTH PACIFIC OFF NORTHERN JAPAN. INCLUDES DATA ON DISTRIBUTION, AGE AND SEX COMPOSITIONS, SEX RATIOS BY AGE, REPRODUCTIVE CONDITIONS BY AGE AND MONTH, PREGNANCY RATE BY AGE, AND FEEDING HABITS. (R)
135. ICHIHARA, T., N. OKUMOTO, AND K. YOSHIDA. 1974. JAPANESE PELAGIC INVESTIGATIONS ON FUR SEALS, 1973. FUR SEAL RES. SEC., SUBM. TO THE 17TH MEET. OF THE NORTH PAC. FUR SEAL COMM., OTTAWA. 65 P.
- DETAILED ACCOUNT OF RESEARCH CONDUCTED IN THE WESTERN NORTH PACIFIC OFF NORTHERN JAPAN. INCLUDES DATA ON DISTRIBUTION, SEX AND AGE COMPOSITIONS, SEX RATIOS BY AGE, REPRODUCTIVE CONDITION BY AGE AND MONTH, PREGNANCY RATE BY AGE, AND FEEDING HABITS. (R)

CALLORHINUS

136. ICHIHARA, T., N. OKUMOTO, AND K. YOSHIDA. 1975. JAPANESE PELAGIC INVESTIGATION OF FUR SEALS, 1974. FAR SEAS FISH. RES. LAB., FISH. AGENCY. PROCESSED REP.

NOT SEEN.

137. JOHNSON, A.M. 1968. ANNUAL MORTALITY OF TERRITORIAL MALE FUR SEALS AND ITS MANAGEMENT SIGNIFICANCE. J. WILDL. MANAGE. 32(1):94-99.

DISCUSSES THE AGE COMPOSITION OF MALES, THEIR BREEDING AGE AND NATURAL MORTALITY RATE FOR ST. PAUL ISLAND, ALASKA. (M)

138. JOHNSON, A.M. 1975. THE STATUS OF NORTHERN FUR SEAL POPULATIONS. PP. 263-266. IN (RONALD, K. AND A.W. MANSFIELD, EDS.), BIOLOGY OF THE SEAL. INT. COUNC. EXPLOR. SEA, (I.C.E.S.), RAPP. & P.-V. REUN., 169.

DISCUSSES OVERALL POPULATION ESTIMATES INCLUDING THE SIZE OF THE HERD ON SAN MIGUEL ISLAND. (P)

139. JOHNSON, A.M. 1976. POPULATION INCREASE AND CHANGES IN DISTRIBUTION OF THREE SPECIES OF MARINE MAMMALS IN THE NORTH PACIFIC OCEAN. ADVISORY COMM. ON MAR. RESOUR. RES. U.N., F.A.O., ACMRR/MM/SC/108. 7 P. BERGEN, NORWAY, 31 AUG. - 9 SEPT. 1976.

DISCUSSES THE RE-ESTABLISHMENT OF FORMER BREEDING GROUNDS AND THE INCREASE IN POPULATION SIZE OF NORTHERN FUR SEALS. INCLUDES THE AVERAGE ANNUAL RATE OF INCREASE OF PUPS BORN ON SAN MIGUEL ISLAND, AND NATALITY AND MORTALITY RATES. (D,M,P,I)

140. KAJIMURA, H., M. PEREL, R. LANDER, B.W. McALLISTER, M. BIGG, I. MacASKIE, AND G. ELLIS. 1977. THE DISTRIBUTION AND FOOD OF NORTHERN FUR SEALS IN THE NORTHEASTERN PACIFIC AND BERING SEA (ABSTRACT). PROCEEDINGS OF THE SECOND CONFERENCE ON THE BIOLOGY OF MARINE MAMMALS. SAN DIEGO, CA, DEC. 12-15, 1977.

DATA HAS BEEN COLLECTED ON THE ABUNDANCE, DISTRIBUTION, AND MIGRATION OF FUR SEALS FROM CALIFORNIA TO THE BERING SEA. INFORMATION IS BASED ON SIGHTING DATA AND DESCRIBED BY TIME AND AREA. MENTIONS IMPACT ON COMMERCIAL FISHERIES. (D,E,F,I)

141. KENYON, K.W. AND V.B. SCHEFFER. 1953. THE SEALS, SEA LIONS AND SEA OTTER OF THE PACIFIC COAST. U.S. FISH. WILDL. SERV., WILDL. LEAFL. 344, 28 P.

BRIEFLY DISCUSSES THE OVERALL RANGE, POPULATION SIZE, BREEDING HABITS, AND FEEDING HABITS OF NORTHERN FUR SEALS. MENTIONS POSSIBLE FISHERY INTERACTIONS. (D,F,P)

CALLORHINUS

142. KENYON, K.W., V.B. SCHEFFER, AND D.G. CHAPMAN. 1954. A POPULATION STUDY OF THE ALASKAN FUR SEAL HERD. U.S. FISH WILDL. SERV., SPEC. SCI. REP. WILDL. 12, 77 P.

DETAILED DISCUSSION OF AGE DISTRIBUTION, PREGNANCY RATES, MORTALITY RATES, OVERALL POPULATION SIZE, AND THE NUMBER OF PUPS BORN ANNUALLY. INCLUDES LIFE TABLES FOR MALES AND FEMALES. (M,R)

143. KENYON, K.W. AND F. WILKE. 1953. MIGRATION OF THE NORTHERN FUR SEAL, CALLORHINUS URSINUS. J. MAMMAL. 34(1):86-97.

MENTIONS THAT SEALS FROM THE PRIBILOF ISLANDS REGULARLY MIGRATE SOUTHWARD IN WINTER TO THE COASTAL WATERS OFF CALIFORNIA AS FAR AS 34°N LATITUDE. INCLUDES MONTHLY SUMMARY OF KNOWN OCCURRENCES AND PROXIMITY TO LAND DURING MIGRATION OFF CALIFORNIA. STATES NATURAL MORTALITY RATE IN THE FIRST YEARS AS 70 PERCENT. (D,M)

144. KEYES, M.C. 1963. MORTALITY AMONG FUR SEAL PUPS, ST. PAUL ISLAND, ALASKA, 15 AUGUST TO 10 SEPTEMBER 1962. U.S. FISH WILDL. SERV., BUR. COMMER. FISH., MAR. MAM. BIOL. LAB., SEATTLE, WA. 24 P.

PAGES 2-15 DISCUSS MORTALITY DUE TO NATURAL CAUSES. INVESTIGATIONS WERE CARRIED OUT BY MEANS OF FIELD OBSERVATIONS AND POST-MORTEM, BACTERIOLOGICAL, AND CLINICAL EXAMINATIONS. (M)

145. KEYES, M.C. 1964. RESEARCH IN FUR SEAL MORTALITY ST. PAUL ISLAND, ALASKA, 8 JULY TO 24 SEPTEMBER 1963. U.S. FISH WILDL. SERV., BUR. COMMER. FISH., MAR. MAM. BIOL. LAB., SEATTLE, WA. 67 P.

CONTAINS A DETAILED DISCUSSION ON MORTALITY WITH REFERENCE TO POSSIBLE CAUSES SUCH AS STARVATION, PARASITISM, INFECTIOUS DISEASE, PREDATION, FOOD POISONING, AND ACCIDENTS. STATES THAT MORTALITY IN NORTHERN FUR SEALS OF THE PRIBILOF ISLANDS IS ESTIMATED TO BE APPROXIMATELY 80 PERCENT FROM BIRTH TO AGE 4 YEARS. (M)

146. KING, J.E. 1964. SEALS OF THE WORLD. LONDON: BRITISH MUSEUM OF NATURAL HISTORY. 154 P.

PAGES 19-23 BRIEFLY DISCUSS THE OVERALL DISTRIBUTION AND GENERAL BIOLOGY OF NORTHERN FUR SEALS. INCLUDES A DISTRIBUTION MAP. (D)

147. KOGAI, V.M. 1971. (PRESENT CONDITION AND DYNAMICS OF THE FUR SEAL POPULATION OF TYULENI (ROBBEN) ISLAND.) PP. 39-60. IN (ARSENIEV, V.A. AND K.I. PANIN, EDS.), (PINNIPEDS OF THE NORTH PACIFIC.) ISRAEL PROGRAM FOR SCIENTIFIC TRANSLATIONS, JERUSALEM (VNIRO). TRUDY, VOL. 68.

CALLORHINUS

CONTAINS INFORMATION ON THE NUMBER OF PROGENY, REPRODUCTIVE RATES, (M,R)
NATURAL MORTALITY RATES, AND THE POPULATION DYNAMICS OF BULLS.

148. LANDER, R.H. 1975. METHOD OF DETERMINING NATURAL MORTALITY IN THE
NORTHERN FUR SEAL (*CALLORHINUS URSINUS*) FROM KNOWN PUPS AND
KILL BY AGE AND SEX. J. FISH. RES. BD. CAN. 32(12):2447-2452.

DISCUSSES A HYPOTHETICAL MODEL FOR DETERMINING NATURAL MORTALITY (M)
FROM THE 1961-1966 YEAR CLASSES OF MALES FROM THE PRIBILOF ISLANDS.

149. LANDER, R.H. 1976. SPECIES DESCRIPTION ALASKAN OR NORTHERN FUR
SEAL, *CALLORHINUS URSINUS*. FAO, PINNIPED SPECIES SUMMARIES,
177 P.

PAGES 25-32 CONTAIN DATA ON OVERALL RANGE AND POPULATION SIZE, (D,M,P,R)
PREGNANCY RATES, NATURAL MORTALITY RATES, TROPHIC RELATIONSHIPS,
AND RELATIONS TO MAN.

150. LANDER, R.H. AND H. KAJIMURA. 1976. STATUS OF NORTHERN FUR SEALS.
ADVISORY COMM. ON MAR. RESOUR. RES. U.N., F.A.O. ACMRR/MM/
SC/34. 50 P.

DETAILED DISCUSSION ON OVERALL DISTRIBUTION, POPULATION SIZE, (D,M,P,R)
MIGRATIONS, PREGNANCY RATES, NATURAL MORTALITY RATES, TRENDS
IN ABUNDANCE, AND FOOD HABITS. COVERS CALIFORNIA AREA.

151. LeBOEUF, B.J. 1968. REPORT OF A VISIT TO SAN MIGUEL ISLAND,
25-26 OCTOBER, 1968. UNIV. CALIF., SANTA CRUZ. 3 P.
(UNPUBL. REP.).

APPROXIMATELY 17 PUPS AND 12 FEMALE FUR SEALS WERE OBSERVED (P)
IN OCTOBER 1968.

152. MARINE MAMMAL BIOLOGICAL LABORATORY. 1969. FUR SEAL INVESTIGA-
TIONS, 1966. U.S. FISH WILDL. SERV., SPEC. SCI. REP. FISH.
584, VII + 123 P.

DETAILED DISCUSSION OF RESEARCH CONDUCTED ON THE PRIBILOF ISLANDS. (D,E,F,M,P,R)
DATA INCLUDES AGE CLASSIFICATION OF MALES AND FEMALES, MORTALITY
RATES, REPRODUCTIVE RATES, AND POPULATION ESTIMATES. ALSO CONTAINS
DATA ON PELAGIC RESEARCH CONDUCTED OFF CALIFORNIA IN 1966. THIS
DATA INCLUDES DISTRIBUTION BY AGE AND SEX, ABUNDANCE OF SEALS AND
SIZE OF GROUPS, PREGNANCY RATES, AND RELATIONS TO COMMERCIAL FISH-
ERIES. INCLUDES MAPS OF CALIFORNIA SHOWING AREAS STUDIED AND THE
NUMBER OF SEALS SEEN PER HOUR OF EFFORT.

CALLORHINUS

153. MARINE MAMMAL BIOLOGICAL LABORATORY. 1970. FUR SEAL INVESTIGATIONS, 1967. U.S. FISH WILDL. SERV., SPEC. SCI. REP. FISH. 597, VII + 104 P.

DISCUSSES RESEARCH CONDUCTED ON THE PRIBILOF ISLANDS. INCLUDES DATA ON AGE AND SEX DISTRIBUTIONS, REPRODUCTIVE CONDITION OF FEMALES, PREGNANCY RATES, MORTALITY RATES, AND POPULATION ESTIMATES. ALSO MENTIONS DISTRIBUTION OFF NORTHERN CALIFORNIA IN SEPTEMBER OF 1967 WITH A MAP OF TRACKLINE ON PAGES 33-34. (D,E,M,R)

154. MARINE MAMMAL BIOLOGICAL LABORATORY. 1970. FUR SEAL INVESTIGATIONS, 1968. U.S. FISH WILDL. SERV., SPEC. SCI. REP. FISH. 617, IX + 125 P.

DISCUSSES RESEARCH CONDUCTED ON THE PRIBILOF ISLANDS. DATA INCLUDES AGE CLASSIFICATION OF MALES AND FEMALES, PREGNANCY RATES, MORTALITY RATES INCLUDING CAUSES OF MORTALITY AND ANNUAL TRENDS IN MORTALITY, AND POPULATION ESTIMATES. MENTIONS PREGNANCY RATES BY YEAR AND MONTH FOR SEALS TAKEN PELAGICALLY OFF CALIFORNIA ON PAGES 45-50. (D,M,R)

155. MARINE MAMMAL BIOLOGICAL LABORATORY. 1971. FUR SEAL INVESTIGATIONS, 1969. U.S. FISH WILDL. SERV., SPEC. SCI. REP. FISH. 628, VII + 90 P.

DISCUSSES RESEARCH CONDUCTED ON THE PRIBILOF ISLANDS AND PELAGICALLY OFF WASHINGTON. DATA INCLUDES FREQUENCY OF ADULTS AND CALVES, MORTALITY RATES, PREGNANCY RATES, AND POPULATION ESTIMATES. (M,R)

156. MARINE MAMMAL BIOLOGICAL LABORATORY. 1971. FUR SEAL INVESTIGATIONS, 1970. U.S. DEPT. COMMER., NOAA(NMFS), NORTHWEST AND ALASKA FISHERIES CENTER, SEATTLE, WA. 155 P.

DATA WAS COLLECTED ON THE PRIBILOF ISLANDS AND PELAGICALLY OFF WASHINGTON FROM MARCH-OCTOBER 1970. INCLUDES INFORMATION ON POPULATION ESTIMATES, NUMBER OF PUPS BORN, AGE AND SEX COMPOSITIONS, REPRODUCTIVE RATES, MORTALITY RATES, FEEDING HABITS, AND THE RELATIONSHIP OF FUR SEALS TO COMMERCIAL FISHERIES. (M,R)

157. MARINE MAMMAL BIOLOGICAL LABORATORY. 1972. FUR SEAL INVESTIGATIONS, 1971. U.S. DEPT. COMMER., NOAA(NMFS), NORTHWEST AND ALASKA FISHERIES CENTER, SEATTLE, WA. 132 P.

SEE ANNOTATION UNDER NORTHERN FUR SEAL: (MARINE MAMMAL BIOLOGICAL LABORATORY, 1971). (M,R)

158. MARINE MAMMAL DIVISION. 1973. FUR SEAL INVESTIGATIONS, 1972. U.S. DEPT. COMMER., NOAA(NMFS), NORTHWEST AND ALASKA FISHERIES CENTER, SEATTLE, WA. 93 P.

CALLORHINUS

PAGES 25-28 CONTAIN INFORMATION ON THE NORTHERN FUR SEAL COLONIES AT ADAM'S COVE, SAN MIGUEL ISLAND, AND AT CASTLE ROCK, NORTH OF THE WEST END OF SAN MIGUEL ISLAND. CONTAINS A CHART WITH A SUMMARY OF OBSERVATIONS OF THE COLONY AT ADAM'S COVE FOR 1969-1972. OBSERVATIONS INCLUDE TOTAL BIRTHS, TOTAL PUP DEATHS, TOTAL MALES, AND TOTAL FEMALES OBSERVED. CONTAINS A CENSUS OF FUR SEALS ON CASTLE ROCK NOTING THE NUMBER OF ADULT AND SUB-ADULT MALES, FEMALES, AND PUPS. THE TOTAL CENSUS FOR BOTH COLONIES IN AUGUST 1972 WAS 10 ADULT MALES, 466 ADULT FEMALES, AND 139 PUPS. ADDITIONAL COUNTS SHOWED THAT AT LEAST 165 PUPS WERE BORN.

(M,P,R)

159. MARINE MAMMAL DIVISION. 1974. FUR SEAL INVESTIGATIONS, 1973.
U.S. DEPT. COMMER., NOAA(NMFS), NORTHWEST AND ALASKA FISHERIES
CENTER, SEATTLE, WA. 96 P.

PAGES 25-27 CONTAIN INFORMATION ON THE NORTHRN FUR SEAL COLONIES AT ADAM'S COVE AND CASTLE ROCK, SAN MIGUEL ISLAND. INCLUDES CENSUS DATA FOR FUR SEALS AT CASTLE ROCK NOTING THE NUMBER OF MALES AND FEMALES AND ALSO NOTES TOTAL BIRTHS, PUP DEATHS, FEMALES, AND MALES OBSERVED AT ADAM'S COVE. TOTAL COUNTS FOR BOTH ROOKERIES SHOWED 21 ADULT MALES, 609 FEMALES, AND APPROXIMATELY 261 PUPS.

(M,P,R)

160. MARINE MAMMAL DIVISION. 1975. FUR SEAL INVESTIGATIONS, 1974.
U.S. DEPT. COMMER., NOAA(NMFS), NORTHWEST AND ALASKA FISHERIES
CENTER, SEATTLE, WA. VII + 125 P.

PAGES 35-37 CONTAIN INFORMATION ON THE NORTHERN FUR SEAL COLONIES AT ADAM'S COVE, SAN MIGUEL ISLAND AND AT CASTLE ROCK, NORTH OF THE WEST END OF SAN MIGUEL ISLAND. MENTIONS THAT THE NUMBER OF PUPS BORN ON THE TWO COLONIES INCREASED FROM 261 IN 1973 TO 524 IN 1974. CONTAINS A CHART WITH SOME OBSERVATIONS FROM THE ADAM'COVE COLONY FOR 1969-1974. OBSERVATIONS INCLUDE TIMES OF FIRST MALE AND FEMALE ARRIVALS, TIME OF FIRST BIRTH, MEAN BIRTH DATE, TOTAL BIRTHS, TOTAL PUP DEATHS, AND TOTAL MALES AND FEMALES PRESENT.

(M,P,R)

161. MARINE MAMMAL DIVISION. 1976. FUR SEAL INVESTIGATIONS, 1975.
U.S. DEPT. COMMER., NOAA(NMFS), NORTHWEST AND ALASKA FISHERIES
CENTER, SEATTLE, WA. 115 P.

PAGES 65-68 CONTAIN INFORMATION ON THE NORTHERN FUR SEAL COLONIES AT ADAM'S COVE AND CASTLE ROCK, SAN MIGUEL ISLAND. INLCUDES CENSUS OF FUR SEAL PUPS AT CASTLE ROCK AND NOTES THE TOTAL BIRTHS, PUP DEATHS, FEMALES AND MALES OBSERVED AT ADAM'S COVE. THE COMBINED NUMBER OF PUPS BORN AT THE TWO COLONIES INCREASED FROM 261 IN 1973 TO 521 (A 100% INCREASE) IN 1974 AND TO 725 (A 39% INCREASE) IN 1975.

(M,P,R)

CALLORHINUS

162. MARINE MAMMAL DIVISION. 1977. FUR SEAL INVESTIGATIONS, 1976. U.S. DEPT. COMMER., NOAA(NMFS), NORTHWEST AND ALASKA FISHERIES CENTER, SEATTLE, WA. 92 P.

PAGES 40-51 CONTAIN INFORMATION ON THE NORTHERN FUR SEAL COLONIES AT ADAM'S COVE AND CASTLE ROCK, SAN MIGUEL ISLAND. INCLUDES POPULATION ESTIMATES AND COUNTS AT ADAM'S COVE NOTING TOTAL BIRTHS, PUP DEATHS, FEMALES, AND ADULT AND BACHELOR MALES. THE TOTAL NUMBER OF BIRTHS INCREASED FROM 329 IN 1975 TO 417 IN 1976. DISCUSSES MORTALITY AND POSSIBLE CAUSES. ALSO INCLUDES A CENSUS OF CASTLE ROCK NOTING THE NUMBER OF ADULT MALES, FEMALES, AND PUPS OBSERVED IN JULY. (M,P,R)

163. MARINE MAMMAL DIVISION. 1978. FUR SEAL INVESTIGATIONS, 1977. U.S. DEPT. COMMER., NOAA(NMFS), NORTHWEST AND ALASKA FISHERIES CENTER, SEATTLE, WA. 94 P.

PAGES 35-38 CONTAIN INFORMATION ON THE NORTHERN FUR SEAL COLONIES AT ADAM'S COVE AND CASTLE ROCK, SAN MIGUEL ISLAND. INCLUDES A SUMMARY BASED ON OBSERVATIONS FOR BOTH COLONIES DURING 1969-1977. OBSERVATIONS INCLUDE TOTAL BIRTHS, TOTAL PUP DEATHS, TOTAL FEMALES, TOTAL ADULT MALES, AND TOTAL BACHELORS. BRIEFLY DISCUSSES PUP MORTALITY ON LAND AND PROBABLE CAUSES. (M,P,R)

164. MARINE MAMMAL DIVISION STAFF. 1977. IMPACT OF MARINE MAMMALS ON SALMON STOCKS. U.S. DEPT. COMMER., NOAA(NMFS), NORTHWEST AND ALASKA FISHERIES CENTER, SEATTLE, WA. 23 P.

DISCUSSES SALMON PREDATION BY NORTHERN FUR SEALS ALONG THE WESTERN COAST OF NORTH AMERICA. MENTIONS THAT SALMON WAS FOUND IN 6% OF STOMACHS CONTAINING FOOD OFF CALIFORNIA. INCLUDES A CHART SHOWING OCCURRENCE OF SALMON IN FUR SEAL STOMACHS COLLECTED DURING RESEARCH CONDUCTED FORM 1958-1974. (F)

165. MARSH, M.C. 1912. THE FUR SEAL MORTALITY OF THE PRIBILOF ROOKERIES IN THE ABSENCE OF PELAGIC SEALING. SCIENCE, (NEW YORK), 36 (939):897-898.

DISCUSSES THE CAUSES OF NATURAL MORTALITY AND THEIR RESPECTIVE RATES. (M)

166. MATE, B.R. 1977. AERIAL CENSUSING OF PINNIPEDS IN THE EASTERN PACIFIC FOR ASSESSMENT OF POPULATION NUMBERS, MIGRATORY DISTRIBUTIONS, ROOKERY STABILITY, BREEDING EFFORT, AND RECRUITMENT. MARINE MAMMAL COMMISSION REPORT MMC-75/01, NTIS PB 265 859. 67 P.

RESULTS OF SURVEYS COVERING 21°-51° NORTH LATITUDE FROM AUGUST 1974 - AUGUST 1975 ARE REPORTED. AERIAL COUNTS FOR NORTHERN FUR SEALS ON SAN MIGUEL ISLAND ARE BELIEVED TO BE THE HIGHEST YET REPORTED. (D,P)

CALLORHINUS

167. MOREJOHN, G.V. 1969. OCCURRENCE OF A PACIFIC RIDLEY AND A YOUNG NORTHERN FUR SEAL IN MONTEREY BAY. CALIF. FISH & GAME 55: 239-242.

PUBLISHED SIGHTING ACCOUNT OF TWO PUPS. INCLUDES A BRIEF DISCUSSION OF DISTRIBUTION AND MIGRATION OFF CALIFORNIA. (D)

168. MOREJOHN, G. V. 1977. MARINE MAMMALS. PP. 1-74. IN (WINZLER AND KELLY, CONSULTING ENGINEERS), A SUMMARY OF KNOWLEDGE OF THE CENTRAL AND NORTHERN CALIFORNIA COASTAL ZONE AND OFFSHORE AREAS. VOL. 2. BIOLOGICAL CONDITONS. BOOK 2. B.L.M. WASH. D.C. NTIS PB 274 213/8ST.

PAGES 13-15 INCLUDE INFORMATION ON THE DISTRIBUTION, LIFE HISTORY, BREEDING AREAS, MIGRATION, ECOLOGY, AND ABUNDANCE OF NORTHERN FUR SEALS. ALSO INCLUDES A DISTRIBUTION MAP. (D,P)

169. NIGGOL, K. 1960. EARLY MORTALITY IN FUR SEALS ACCORDING TO SEX. J. WILDL. MANAGE. 24:428-429.

EXAMINATION OF SEX RATIOS AND MORTALITY RATES WAS INCONCLUSIVE FOR NORTHERN FUR SEALS. (M)

170. NIGGOL, K. AND C. H. FISCUS, JR. 1960. NORTHERN FUR SEAL TWINS. MAMMALIA 24:457-458.

IN 1958 AND 1959, THREE SETS OF TWINS WERE COLLECTED DURING THE COURSE OF PELAGIC FUR SEAL INVESTIGATIONS CONDUCTED BY THE U.S. FISH & WILDLIFE SERVICE. TWO OF THOSE WERE COLLECTED OFF CALIFORNIA. (R)

171. NIGGOL, K., C.H. FISCUS, AND F. WILKE. 1959. PELAGIC FUR SEAL INVESTIGATIONS - CALIFORNIA, OREGON, AND WASHINGTON, 1959. U.S. FISH WILDL. SERV., BUR. COMMER. FISH., SECTION OF MAR. MAM. RES. SEATTLE, WA. 92 P.

RESULTS OF RESEARCH CONDUCTED FROM JANUARY - APRIL 1959 ARE PRESENTED. INCLUDES A MAP WITH THE DISTRIBUTION OF SEALS OBSERVED AND COLLECTED FROM 32° NORTH LATITUDE TO 43° NORTH LATITUDE. CONTAINS POSSIBLE EFFORT RECORD BASED ON THE NUMBER OF SEALS SEEN PER BOAT HUNTING DAY. THE OVERALL PREGNANCY RATE FOR FEMALES COLLECTED OFF CALIFORNIA FOUR YEARS OF AGE AND OLDER WAS 75%. ANCHOVEY, HAKE, SQUID, AND SAURY COMPRISED 90% OF THE FOOD OF SEALS TAKEN OFF CALIFORNIA. (D,E,F,P)

172. NISHIWAKI, M. 1972. GENERAL BIOLOGY. PP. 3-204. IN (RIDGWAY, S.H., ED.), MAMMALS OF THE SEA. BIOLOGY AND MEDICINE. SPRINGFIELD, IL: C.C. THOMAS.

CALLORHINUS

- PAGES 159-160 CONTAIN INFORMATION ON THE DISTRIBUTION, MIGRATION, AND REPRODUCTION OF NORTHERN FUR SEALS. REPRODUCTIVE DATA INCLUDES THE AGE OF SEXUAL MATURITY, FREQUENCY OF PREGNANCY, AND AGE OF FIRST REPRODUCTION. MENTIONS OVERALL POPULATION SIZE. (D,P,R)
173. NORTH PACIFIC FUR SEAL COMMISSION. 1965. REPORT ON INVESTIGATIONS FROM 1958 TO 1961. KENKYUSHA PRINT. CO., TOKYO. 183 P.
- DETAILED DISCUSSION OF THE POPULATION DYNAMICS OF THE FUR SEAL HERD ON THE PRIBILOF ISLANDS. INCLUDES THE FREQUENCY OF ADULTS AND CALVES, PREGNANCY RATES BY AGE, AND NATURAL MORTALITY RATES. INCLUDES INFORMATION ON THE DISTRIBUTION AND FOOD HABITS OFF CALIFORNIA. MENTIONS IMPACT ON FISHERIES. (D,F,M,R)
174. NORTH PACIFIC FUR SEAL COMMISSION. 1969. REPORT ON INVESTIGATIONS FROM 1964 TO 1966. KENKYUSHA PRINT. CO., TOKYO. 161 P.
- DETAILED ACCOUNT OF THE POPULATION DYNAMICS OF FUR SEALS ON THE PRIBILOF ISLANDS AND ROBBEN AND COMMANDER ISLANDS. DATA INCLUDES FREQUENCY OF ADULTS AND CALVES, PREGNANCY RATES, MORTALITY RATES, AND THE NUMBER OF PUPS BORN. ALSO INCLUDES INFORMATION ON THE DISTRIBUTION BY AGE AND SEX AND FOOD HABITS OFF CALIFORNIA. MENTIONS IMPACT ON FISHERIES. (D,F,M,R)
175. NORTH PACIFIC FUR SEAL COMMISSION. 1971. REPORT ON INVESTIGATIONS FROM 1962-1963. KENKYUSHA PRINT. CO., TOKYO. 96 P.
- SEE ANNOTATION UNDER NORTHERN FUR SEAL: (NORTH PACIFIC FUR SEAL COMMISSION, 1969). (D,F,M,R)
176. NORTH PACIFIC FUR SEAL COMMISSION. 1975. REPORT ON INVESTIGATIONS FROM 1967 THROUGH 1972. DEPENDABLE PRINT. CO., INC., HYATTSVILLE, MD. 212 P.
- SEE ANNOTATION UNDER NORTHERN FUR SEAL: (NORTH PACIFIC FUR SEAL COMMISSION, 1969). (D,F,M,R)
177. ORR, R.T. AND T.C. POULTER. 1965. THE PINNIPED POPULATION OF ANO NUEVO ISLAND, CALIFORNIA. CALIF. ACAD. SCI., PROC., SER. 4, 32(13):377-404.
- SIGHTING RECORD OF A MALE NORTHERN FUR SEAL IN 1962. (D)
178. PEARSON, A.K. AND R. T. ENDERS. 1951. FURTHER OBSERVATIONS ON THE REPRODUCTION OF THE ALASKAN FUR SEAL. ANAT. REC. 111: 695-711.
- CONTAINS A BRIEF DISCUSSION ON THE AGE OF FIRST ESTROUS, TIME OF IMPLANTATION, AND THE REPRODUCTIVE PERFORMANCE OF SEALS OF DIFFERENT AGES. (R)

CALLORHINUS

179. PETERSON, R.S. AND S.M. COOPER. 1968. A HISTORY OF THE FUR SEALS OF CALIFORNIA. UNIV. CALIF., SANTA CRUZ. AND NUEVO REP. 2: 47-54.

DISCUSSES THE HISTORICAL DISTRIBUTION, ABUNDANCE, AND EXPLOITATION OF CALLORHINUS.

(D,P)

180. PETERSON, R.S., R.L. GENTRY, AND B.J. LeBOEUF. 1968. INVESTIGATIONS OF PINNIPEDS ON SAN MIGUEL AND SAN NICOLAS ISLANDS, FEBRUARY - MARCH, 1968. UNIV. CALIF., SANTA CRUZ. MANUSCR.

NOT SEEN. SUPPOSED TO INCLUDE SIGHTINGS OF NORTHERN FUR SEALS.

181. PETERSON, R.S. AND B.J. LeBOEUF. 1969. FUR SEALS IN CALIFORNIA. PAC. DISC. 22(3):12-15.

BRIEF DISCUSSION OF FUR SEAL COLONY RECENTLY DISCOVERED ON SAN MIGUEL ISLAND.

(D)

182. PETERSON, R.S., B.J. LeBOEUF, AND R.L. DeLONG. 1968. FUR SEALS FROM THE BERING SEA BREEDING IN CALIFORNIA. NATURE, (LONDON), 219(5157):899-901.

SMALL BREEDING COLONY OF 100 ANIMALS FOUND ON SAN MIGUEL ISLAND, CALIFORNIA. GIVES AGE AND SEX COMPOSITION FOR COLONY.

(D,P)

183. RICE, D.W. 1963. THE WHALE MARKING CRUISE OF THE SIOUX CITY OFF CALIFORNIA AND BAJA CALIFORNIA. NORSK HVAL.-TID. 52(6): 153-160.

CONTAINS A SIGHTING RECORD OF ONE NORTHERN FUR SEAL OBSERVED AT SEA IN NOVEMBER 1962. POSITION OF SIGHTING IS GIVEN.

(D)

184. ROPPEL, A.Y., A.M. JOHNSON, R.E. ANAS, AND D.G. CHAPMAN. 1965. FUR SEAL INVESTIGATIONS, PRIBILOF ISLANDS, ALASKA, 1964. U.S. FISH WILDL. SERV., SPEC. SCI. REP. FISH. 502, VI + 46 P.

DETAILED DISCUSSION OF SEX AND AGE DISTRIBUTIONS, REPRODUCTIVE RATES, MORTALITY RATES, AND POPULATION ESTIMATES.

(M,R)

185. ROPPEL, A.Y., A.M. JOHNSON, R.E. ANAS, AND D.G. CHAPMAN. 1966. FUR SEAL INVESTIGATIONS, PRIBILOF ISLANDS, ALASKA, 1965. U.S. FISH WILDL. SERV., SPEC. SCI. REP. FISH. 536, VI + 45 P.

DETAILED DISCUSSION OF SEX AND AGE DISTRIBUTIONS, REPRODUCTIVE RATES, MORTALITY RATES, AND POPULATION ESTIMATES.

(M,R)

CALLORHINUS

186. ROPPEL, A.Y., A.M. JOHNSON, R.D. BAUER, D.G. CHAPMAN, AND F. WILKE. 1963. FUR SEAL INVESTIGATIONS, PRIBILOF ISLANDS, ALASKA, 1962. U.S. FISH WILDL. SERV., SPEC. SCI. REP. FISH. 454, 101 P.
- DETAILED DISCUSSION OF POPULATION SIZE WITH REFERENCE TO AGE CLASSIFICATION OF MALES AND FEMALES, PREGNANCY RATES, AND MORTALITY RATES. (M,R)
187. ROPPEL, A.Y., A.M. JOHNSON, AND D.G. CHAPMAN. 1965. FUR SEAL INVESTIGATIONS, PRIBILOF ISLANDS, ALASKA, 1963. U.S. FISH WILDL. SERV., SPEC. SCI. REP. FISH. 497, V + 60 P.
- DISCUSSES AGE AND SEX DISTRIBUTIONS, PREGNANCY RATES, AND LAND BASED MORTALITY RATES. (M,R)
188. SCHEFFER, V.B. 1950. THE FOOD OF THE ALASKAN FUR SEAL. U.S. FISH WILDL. SERV., WILDL. LEAFL. 329, 16 P.
- SUMMARIZES 11 ARTICLES (PUBLISHED 1892-1949) REPORTING ON A TOTAL OF 1,295 STOMACHS, 52 OF WHICH CONTAINED SALMON. (F)
189. SCHEFFER, V.B. 1958. SEALS, SEA LIONS, AND WALRUSES. A REVIEW OF THE PINNIPEDIA. STANFORD, CA: STANFORD UNIV. PRESS. 179 P.
- PAGES 82-84 DISCUSS OVERALL RANGE AND POPULATION SIZE OF THE NORTHERN FUR SEAL. INCLUDES A DISTRIBUTION MAP ON PAGE 79. (D,P)
190. SCOTT, K. 1954. NORTHERN FUR SEAL ASHORE IN SAN DIEGO, CALIFORNIA. J. MAMMAL. 35:258.
- MATURE COW SEAL FOUND ASHORE AT PACIFIC BEACH, CALIFORNIA. (D)
191. SMITH, P.E. 1976. AN EXPLORATION OF THE IMPORTANCE OF PREDATION ON NORTHERN ANCHOVY BY FISH, MAMMALS, INVERTEBRATES AND BIRDS. U.S. DEPT. COMMER., NOAA(NMFS), SOUTHWEST FISHERIES CENTER, LA JOLLA, CA. SWFC ADMIN. REP. LJ-76.
- PRESENTS DATA ON THE LOCAL DENSITY AND FEEDING RATES OF CALLORHINUS IN AND AROUND THE LOS ANGELES BIGHT AREA. MENTIONS THE FOLLOWING ASSUMPTION: 273 ANIMALS PER 100 KM² AT AN AVERAGE WEIGHT OF 26 KG WOULD EAT 3.2 KG/DAY OR AN AVERAGE OF 80 METRIC TONS PER QUARTER PER 100 KM². (E,F)
192. SPAULDING, D.J. 1964. COMPARATIVE FEEDING HABITS OF THE FUR SEAL, SEA LION, AND HARBOUR SEAL ON THE BRITISH COLUMBIA COAST. FISH RES. BD. CAN., BULL. 146, 51 P.
- 2113 FUR SEAL SPECIMENS WERE STUDIED. EMPHASIS WAS PLACED ON COMMERCIAL FISH SPECIES WITH HERRING AND SALMON MAKING UP 43% AND 5.8% OF THE DIET RESPECTIVELY. (F)

CALLORHINUS

193. STARKS, E.C. 1922. RECORDS OF THE CAPTURE OF FUR SEALS ON LAND IN CALIFORNIA. CALIF. FISH & GAME 8(3):155-160.

EVIDENCE SUGGESTS THAT FUR SEALS THAT HAVE BEEN TAKEN ON OUR COASTS, WHEN TAKEN ON LAND WERE THE GUADALUPE FUR SEAL AND NOT THE ALASKAN FUR SEAL. (D)

194. TAYLOR, F.H.C., M. FUJINAGA, AND F. WILKE. 1955. DISTRIBUTION AND FOOD HABITS OF THE FUR SEALS OF THE NORTH PACIFIC OCEAN; REPORT OF COOPERATIVE INVESTIGATIONS BY THE GOVERNMENTS OF CANADA, JAPAN, AND THE UNITED STATES, FEBRUARY - JULY 1952. U.S. FISH WILDL. SERV., GOV'T. PRINT. OFFICE, WASH. D.C. X + 86 P.

CONTAINS INFORMATION ON THE DISTRIBUTION OF FUR SEALS BY PLACE, TIME, SEX, AGE, AND NUMBERS OFF CALIFORNIA FROM FEBRUARY TO MARCH 1952. FEMALES COLLECTED OFF CALIFORNIA HAD AN OVERALL PREGNANCY RATE OF 68%. INCLUDES A DETAILED DISCUSSION OF FOOD HABITS OF SEALS MIGRATING ALONG THE PACIFIC COAST OF NORTH AMERICA. PREDATION BY SEALS ON COMMERCIAL FISHES WAS GREATEST OFF CALIFORNIA. EXCLUDING SALMON, HOWEVER, THESE SPECIES REPRESENT FISHERIES OF ONLY MINOR IMPORTANCE. SALMON CONSTITUTED 6% OF THE SEAL'S FOOD. (D,E,F,P)

195. TINRO AND VNIRO. 1974. REPORT ON FUR SEAL INVESTIGATIONS OF THE U.S.S.R. PAC. RES. INST. OF FISH. AND OCEAN. (TINRO), ALL-UNION RES. INST. OF MARINE FISH. AND OCEAN. (VNIRO), MOSCOW, 1974. V + 66 P.

SEE ANNOTATION UNDER NORTHERN FUR SEAL: (ARSENIEV, 1971). (M,R)

196. U.S. DEPARTMENT OF COMMERCE. 1972. MEASURING MORTALITY OF FUR SEAL PUPS IS IMPORTANT TO MANAGEMENT OF HERDS. COMM. FISH. REV. 34(3-4):29-31.

DISCUSSES PREGNANCY AND NATURAL MORTALITY RATES FOR THE PRIBILOF ISLANDS. (M,R)

197. U.S. DEPARTMENT OF COMMERCE. 1978. REPORT OF THE SECRETARY OF COMMERCE ON ADMINISTRATION OF THE MARINE MAMMAL PROTECTION ACT OF 1972. ANNUAL REPORT, APRIL 1, 1977 TO MARCH 3, 1978. PREPARED BY NOAA/NMFS. 183 P.

PAGES 49-51 DISCUSS OVERALL DISTRIBUTION, ABUNDANCE, AND REPRODUCTIVE DATA FOR NORTHERN FUR SEALS. (D,P)

198. U.S. DEPARTMENT OF STATE. 1978. DRAFT ENVIRONMENTAL IMPACT STATEMENT FOR RENEGOTIATION OF THE INTERNATIONAL CONVENTION FOR THE HIGH SEAS FISHERIES OF THE NORTH PACIFIC OCEAN. U.S. DEPT. STATE. 147 P. (UNPUBL.)

CALLORHINUS

PAGES 109-113 DISCUSS THE TAXONOMY, DISTRIBUTION, MIGRATION, STOCK IDENTITY, REPRODUCTION, AND POPULATION STATUS OF NORTHERN FUR SEALS. (D,P)

199. U.S. GEOLOGICAL SURVEY. 1976. MARINE MAMMALS. PP. 303-320. IN FINAL ENVIRONMENTAL STATEMENT OIL AND GAS DEVELOPMENT IN THE SANTA BARBARA CHANNEL OUTER CONTINENTAL SHELF OFF CALIFORNIA. VOL. 2 OF 3. U.S. DEPT. INTER.

PAGE 305 STATES NORTHERN FUR SEAL POPULATION SIZE OFF THE CALIFORNIA COAST. PAGE 318 CONTAINS A CHART SHOWING APPROXIMATE TIMES OF NORTHERN FUR SEAL ACTIVITY ON THE SANTA BARBARA CHANNEL ISLANDS. (D,P)

200. VLADIMIROV, V.A. 1971. (POPULATION DYNAMICS OF FUR SEALS ON ROBBEN ISLAND.) FISH. RES. BD. CAN., TRANSL. SER. 2496, 1973.

DISCUSSES RECRUITMENT AND PREGNANCY RATES FOR 1957-1970. (R)

201. WILKE, F. AND K. KENYON. 1954. MIGRATION AND FOOD OF THE NORTHERN FUR SEAL. TRANS. N. AM. WILDL. CONF. 19:430-440.

DISCUSSES MOVEMENTS AND FOOD HABITS OF FUR SEALS OFF CALIFORNIA. STOMACH CONTENTS ARE REPORTED FROM 148 SEALS. (D,F)

202. WILKE, F., K. NIGGOL, AND C.H. FISCUS. 1958. PELAGIC FUR SEAL INVESTIGATIONS - CALIFORNIA, OREGON, WASHINGTON, AND ALASKA, 1958. U.S. FISH WILDL. SERV., BUR. COMMER. FISH., SECTION OF MAR. MAM. RES. SEATTLE, WA. 96 P.

RESULTS OF RESEARCH CONDUCTED FROM FEBRUARY - MARCH 1958 ARE PRESENTED. INCLUDES A MAP WITH THE DISTRIBUTION OF SEALS OBSERVED AND COLLECTED FROM 33°50' NORTH LATITUDE TO 43°40' NORTH LATITUDE. CONTAINS CHARTS SHOWING THE NUMBERS, RELATIVE ABUNDANCE, AGE, AND SEX OF SEALS COLLECTED OFF CALIFORNIA. CONTAINS POSSIBLE EFFORT RECORD BASED ON THE NUMBER OF SEALS SEEN PER BOAT HUNTING DAY. ONLY FEMALES WERE COLLECTED OFF CALIFORNIA AND DATA INCLUDES REPRODUCTIVE CONDITION BY AGE AND PREGNANCY RATES. AN OVERALL PREGNANCY RATE OF 74% WAS FOUND FOR SEALS 4 TO 22 YEARS OF AGE. SAURY, SQUID, HAKE, AND ANCHOVEY ACCOUNTED FOR 73% OF THE FOOD OF SEALS TAKEN OFF CALIFORNIA. (D,E,F,P,R)

203. YOSHIDA, K. AND I. TADAYOSHI. 1974. SOME COMMENTS ON REPRODUCTIVE CONDITION IN FEMALE FUR SEALS. FAR SEAS FISH. RES. LAB., BULL. 11:9-20.

CONTAINS A DETAILED DISCUSSION ON THE MATURITY RATE, TRUE PREGNANCY RATE, AND RATIO OF MISSED PREGNANCIES FOR FEMALES COLLECTED BY JAPAN IN THE WESTERN PACIFIC. (R)

EUMETOPIAS JUBATUS - STELLER SEAL LION

4. AINLEY, D.G., H.R. HUBER, R.P. HENDERSON, AND T.J. LEWIS. 1977. STUDIES OF MARINE MAMMALS AT THE FARALLON ISLANDS, CALIFORNIA, 1970-1975. MARINE MAMMAL COMMISSION REPORT MMC-74-04, NTIS PB 274 046. 42 P.

STATES THAT STELLER SEA LIONS HAVE BEEN DECLINING IN NUMBER. MENTIONS THAT POSSIBLE CAUSES MAY BE A HIGH INCIDENCE OF PUP MORTALITY MAINLY DUE TO STILLBIRTHS, AND A LOW PREGNANCY RATE. BRIEFLY NOTES THAT THERE WERE 13 INSTANCES OF SEA LION SHOOTINGS AS A RESULT OF CONFLICTS WITH FISHERMEN.

(D,F,M,P,R)

5. AINLEY, D.G., H.R. HUBER, R.P. HENDERSON, T.J. LEWIS, AND S.H. MORRELL. 1977. STUDIES OF MARINE MAMMALS AT THE FARALLON ISLANDS, CALIFORNIA, 1975-1976. MARINE MAMMAL COMMISSION REPORT MMC-75/02, NTIS PB 266 249. 32 P.

MENTIONS THAT THE BREEDING NUMBERS OF STELLER SEA LIONS REMAINED STABLE, BUT THE PREGNANCY RATE REMAINED LOW AND PUP MORTALITY RATES WERE VERY HIGH. INCLUDES A CHART WITH CENSUS TOTALS FROM 1971-1976.

(D,M,P,R)

6. AINLEY, D.G., H.R. HUBER, S. MORRELL, AND R.H. LEVALLEY. 1978. STUDIES AT THE FARALLON ISLANDS, 1977. FINAL REP., MARINE MAMMAL COMM., CONTRACT NO. MM6AC027, WASH. D.C.

NOT SEEN.

7. ANDERSON, H. 1960. SEA LION - CREATURE OF CONTROVERSY. PRESENTED TO SENATE FACT FINDING COMM. NAT. RESOUR., FORT BRAGG, CA. MANUSCR.

DISCUSSES THE HISTORY OF THE SEA LION CONTROVERSY IN CALIFORNIA. INCLUDES STATUS OF NORTHERN SEA LION POPULATIONS, FEEDING HABITS, EFFECT OF SEA LIONS ON FISHERY RESOURCES, THE DESTRUCTION OF FISHING GEAR, AND POSSIBLE CONTROL METHODS.

(F,P)

8. BARR, L. 1975. STELLER SEA LION. OCEANS 8(4):18-21.

DISCUSSES THE DISTRIBUTION AND OVERALL ABUNDANCE OF STELLER SEA LIONS ALONG THE PACIFIC COAST OF NORTH AMERICA. BRIEFLY MENTIONS THAT SEA LIONS HAVE BEEN BLAMED BY FISHERMEN FOR FEEDING ON HALIBUT AND SALMON.

(D,F,P)

9. BARTHOLOMEW, G.A., JR. 1951. SPRING, SUMMER, AND FALL CENSUSES OF THE PINNIPEDS ON SAN NICHOLAS ISLAND, CALIFORNIA. J. MAMMAL. 32(1):15-21.

EUMETOPIAS

CONTAINS DATA FROM SIX CENSUSES FOR NORTHERN SEA LIONS FROM MAY 1949 TO APRIL 1950. ONLY ISOLATED INDIVIDUALS WERE SEEN. (D)

210. BARTHOLOMEW, G.A., JR. 1967. SEAL AND SEA LION POPULATIONS OF THE CALIFORNIA ISLANDS. PP. 229-244. IN (PHILBRICK, R.N., ED.), PROC. SYMP. ON THE BIOLOGY OF THE CALIFORNIA ISLANDS. SANTA BARBARA BOTANIC GARDEN.

DISCUSSES STELLER SEA LION DISTRIBUTION, SEASONAL MIGRATIONS, AND NOTES THAT DURING THE PAST SEVERAL DECADES THE POPULATION ON THE SOUTHERN CALIFORNIA ISLANDS HAS FALLEN PRECIPITOUSLY. (D,P)

211. BARTHOLOMEW, G.A. AND R.A. BOOTLOOTIAN. 1960. NUMBERS AND POPULATION STRUCTURE OF THE PINNIPEDS ON THE CALIFORNIA CHANNEL ISLANDS. J. MAMMAL. 41(3):366-375.

MENTIONS THAT STELLER SEA LIONS BREED AS FAR NORTH AS HERSCHEL ISLAND (69°N) AND AS FAR SOUTH AS THE CALIFORNIA CHANNEL ISLANDS (33°N). CONTAINS CENSUS DATA BY ISLAND WITH AGE AND SEX COMPOSITIONS DURING 1958-1959. MENTIONS THAT THE POPULATION PEAKED IN 1938, BUT HAS SINCE DECLINED AND NOW CONSISTS OF ONLY A FEW ANIMALS. (D,P,R)

212. BONNOT, P. 1928. REPORT ON THE SEALS AND SEAL LIONS OF CALIFORNIA. CALIF. DEPT. FISH & GAME, FISH. BULL. 14, 62 P.

INCLUDES RANGE, SIGHTINGS, SEX RATIOS, AND POPULATION CENSUS FOR STELLER SEA LIONS FOR 1927 AND 1928. MENTIONS INTERACTIONS WITH COMMERCIAL FISHERIES. (D,F,P)

213. BONNOT, P. 1931. THE CALIFORNIA SEA LION CENSUS FOR 1930. CALIF. FISH & GAME 17(2):150-155.

CONTAINS A CENSUS OF ROOKERIES AND HAULING OUT GROUNDS FOR THE STELLER SEA LION. INCLUDES A CHART WITH CENSUS COUNTS FOR 1927, 1928, AND 1930. (D,P)

214. BONNOT, P. 1937. CALIFORNIA SEA LION CENSUS FOR 1936. CALIF. FISH & GAME. 23(2):108-112.

CONTAINS A CENSUS OF ROOKERIES AND HAULING OUT GROUNDS FOR THE STELLER SEA LION WITH REFERENCE TO THE NUMBER OF BULLS AND COWS. INCLUDES A CHART WITH CENSUS COUNTS FOR 1927, 1928, 1930, AND 1936. (D,P)

215. BONNOT, P. 1951. THE SEA LIONS, SEALS AND SEA OTTER OF THE CALIFORNIA COAST. CALIF. FISH & GAME 37(4):371-389.

DISCUSSES STELLER SEA LION RANGE, AGE OF SEXUAL MATURITY, FREQUENCY OF PREGNANCY, NATURAL MORTALITY, AND INTERACTIONS WITH COMMERCIAL FISHERIES. (D,F,M,P)

EUMETOPIAS

216. BONNOT, P., G.H. CLARK, AND S.R. HATTON. 1938. CALIFORNIA SEA LION CENSUS FOR 1938. CALIF. FISH & GAME 24(4):415-419.
- CONTAINS A CENSUS OF ROOKERIES AND HAULING OUT GROUND FOR THE STELLER SEA LION WITH REFERENCE TO THE NUMBER OF BULLS AND COWS. INCLUDES A CHART WITH CENSUS COUNTS FOR 1927, 1928, 1930, 1936 AND 1938. (D,P)
217. BONNOT, P. AND W.E. RIPLEY. 1948. THE CALIFORNIA SEA LION CENSUS FOR 1947. CALIF. FISH & GAME 34(3):89-92.
- CONTAINS A CENSUS OF ROOKERIES AND HAULING OUT GROUNDS FOR THE STELLER SEA LION. INCLUDES A CHART WITH A NUMERICAL COMPARISON OF EARLIER CENSUSES. (D,P)
218. BRAHAM, H.W. 1974. THE CALIFORNIA SEA LION ON ISLANDS OFF THE COAST OF SAN LUIS OBISPO COUNTY, CALIFORNIA, U.S.A. CALIF. FISH & GAME 60(2):79-83.
- THE NUMBER OF SEA LIONS ON SIX SMALL ISLANDS WERE COUNTED EACH MONTH FROM MAY 1971 TO MAY 1972. STELLER SEA LIONS WERE SEEN ON TWO OCCASIONS AT LION ROCK. (D)
219. BROWN, D. UNPUBLISHED EUMETOPIAS DATA. PT. REYES NATL. SEASHORE, PT. REYES, CA.
- AN INTERMITTENT EUMETOPIAS CENSUS WAS CONDUCTED AT PT. REYES DURING 1968 AND 1969. DURING EACH CENSUS ALL ANIMALS WERE COUNTED AT LEAST TWICE TO INSURE ACCURATE COUNTS. CENSUS DATA INCLUDES DATE, LOCATION, WEATHER CONDITIONS, TIDE LEVEL, TOTAL NUMBER OF OBVIOUS MALES, TOTAL NUMBER OF ALL OTHER ANIMALS, AND NOTES TOTAL NUMBER OF PUPS OR JUVENILES WHEN OBSERVED. A MAP IS AVAILABLE SHOWING THE LOCATION OF EUMETOPIAS BREEDING AND HAULING OUT AREAS WITHIN THE PARK. (D,P)
220. BUREAU OF LAND MANAGEMENT. 1975. MARINE MAMMALS. PP. 407-445. IN FINAL ENVIRONMENTAL STATEMENT PROPOSED 1975 OUTER CONTINENTAL SHELF OIL AND GAS GENERAL LEASE SALE OFFSHORE SOUTHERN CALIFORNIA. VOL. 1 OF 5. U.S. DEPT. INTER.
- PAGES 434-445 INCLUDE INFORMATION ON RANGE AND BREEDING GROUNDS, POPULATION SIZE, LIFE HISTORY, AND DISEASES OF STELLER SEA LIONS. INCLUDES MAPS OF BREEDING AND HAULING OUT GROUNDS. (D,P)
221. BUREAU OF MARINE FISHERIES. 1947. CALIFORNIA SEA LION CENSUS FOR 1946. CALIF. FISH & GAME 33(1):19-22.
- CONTAINS CENSUS OF ROOKERIES AND HAULING OUT GROUNDS FOR THE STELLER SEA LION. INCLUDES A CHART WITH A NUMERICAL COMPARISON OF EARLIER CENSUSES. (D,P)

EUMETOPIAS

222. BURGE, R. 1976. PELAGIC BIRD SURVEY - ESTERO BAY. CALIF. DEPT. FISH & GAME, MARINE RESOURCE REGION, CRUISE REPORT 76-R-1.

SIGHTING RECORD OF EIGHT STELLER SEA LIONS WITH REFERENCE TO CRUISE TRANSECTS. (D,E)

223. CALIFORNIA COOPERATIVE FISHERIES INVESTIGATIONS (CALCOFI). DATA REPORTS 1-26. STATE OF CALIF., DEPT. FISH & GAME, MARINE RESEARCH COMM., 1965-1977.

SEE ANNOTATION UNDER CALIFORNIA SEA LION: (CALIFORNIA COOPERATIVE FISHERIES INVESTIGATIONS (CALCOFI). DATA REPORTS 1-26). (D)

224. CALIFORNIA DEPARTMENT FISH AND GAME. 1958. MARINE RESOURCES OPERATIONS - AIRPLANE SPOTTING FLIGHT 58-9. CALIF. DEPT. FISH & GAME, SACRAMENTO, CA.

CONTAINS AERIAL CRUISE TRACK OF SEA LION CENSUS FOR THE ENTIRE COAST AND OFFSHORE ISLANDS OF CALIFORNIA DURING JUNE 1958. (E)

225. CARLISLE, J.G. AND J.A. APLIN. 1966. SEA LION CENSUS FOR 1965, INCLUDING COUNTS OF OTHER CALIFORNIA PINNIPEDS. CALIF. FISH & GAME 52(2):119-120.

CONTAINS A STELLER SEA LION CENSUS OF ROOKERIES AND HAULING OUT GROUNDS WITH A COMPARISON TO DISTRIBUTION IN PREVIOUS YEARS. (D,P)

226. CARLISLE, J.G. AND J.A. APLIN. 1971. SEA LION CENSUS FOR 1970, INCLUDING COUNTS OF OTHER CALIFORNIA PINNIPEDS. CALIF. FISH & GAME 57(3):124-126.

CONTAINS A STELLER SEA LION CENSUS OF ROOKERIES AND HAULING OUT GROUNDS WITH A COMPARISON TO DISTRIBUTION IN PREVIOUS YEARS. (D,P)

227. COLLYER, R.D., AND J.L. BAXTER. 1951. OBSERVATIONS ON PINNIPEDS OF SAN MIGUEL ISLAND. CALIF. FISH & GAME 37(4):511.

CONTAINS A POPULATION ESTIMATE FOR STELLER SEA LIONS IN MAY OF 1951. (P)

228. EVERMANN, B.W. 1921. THE ANO NUEVO STELLER SEA LION ROOKERY. J. MAMMAL. 2(1):16-19.

BRIEFLY DISCUSSES POPULATION SIZE IN JUNE 1920. NOTES PREPONDERANCE OF ADULT BULLS, THE NUMBER OF LIVE AND DEAD PUPS SEEN, AND RELATIONS TO COMMERCIAL FISHERIES. (F,M,P)

EUMETOPIAS

229. EVERMANN, B.W. AND G.D. HANNA. 1925. THE STELLER SEA LION ROOKERY ON ANO NUEVO ISLAND, CALIFORNIA, IN 1924. J. MAMMAL. 6(1):96-99.

DISCUSSES POPULATION SIZE, SEX DISTRIBUTIONS, AND NUMBER OF PUPS PRESENT. (P,R)
230. FISCUS, C.H. 1977. A SUMMARY OF INFORMATION ON THE PACIFIC HAKE, MERLUCCIIUS PRODUCTUS, THE FISHERY, AND MARINE MAMMALS. MARINE MAMMAL DIVISION, NORTHWEST AND ALASKA FISHERIES CENTER FOR THE MARINE MAMMAL/FISHERIES WORKSHOP, 19-20 DEC. 1977. SEATTLE, WA. 25 P.

DISCUSSES THE BIOLOGY, FEEDING HABITS, RANGE, POPULATION SIZE, AND COMMERCIAL FISHERY FOR HAKE. INCLUDES INFORMATION ON THE OVERALL DISTRIBUTION OF THE NORTHERN SEA LION, THEIR ESTIMATED POPULATION SIZE IN HAKE RANGE, TOTAL POPULATION SIZE, AND THEIR RELATIONSHIP TO HAKE. (D,F,P)
231. FISCUS, C.H. AND G.A. BAINES. 1966. FOOD AND FEEDING BEHAVIOR OF STELLER AND CALIFORNIA SEA LIONS. J. MAMMAL. 47(2):195-200.

SEE ANNOTATION UNDER CALIFORNIA SEA LION: (FISCUS AND BAINES, 1966). (D,F)
232. FISCUS, C.H. AND V.B. SCHEFFER. 1962. VARIETY OF FOOD REMAINS IN STOMACHS OF STELLER SEA LIONS. U.S. FISH WILDL. SERV., BUR. COMMER. FISH., MAR. MAM. BIOL. LAB., SEATTLE, WA. 13 P. (UNPUBL. MANUSCR.).

REVIEWS 11 INVESTIGATIONS TOTALING 131 SPECIMENS. (F)
233. FREY, H.W. AND J.A. APLIN. 1970. SEA LION CENSUS FOR 1969, INCLUDING COUNTS OF OTHER CALIFORNIA PINNIPEDS. CALIF. FISH & GAME 56(2):130-133.

CONTAINS A STELLER SEA LION CENSUS OF ROOKERIES AND HAULING OUT GROUNDS WITH A COMPARISON TO DISTRIBUTION IN PREVIOUS YEARS. (D,P)
234. FRY, D.H. 1939. A WINTER INFLUX OF SEA LIONS FROM LOWER CALIFORNIA. CALIF. FISH & GAME 25:245-250.

CONTAINS A CENSUS OF STELLER SEA LIONS FOR MARCH OF 1939 WITH A CHART COMPARING DISTRIBUTION TO PREVIOUS CENSUSES. MENTIONS THE POSSIBLE NORTHWARD MIGRATION AFTER THE BREEDING SEASON. (D,P)
235. GENTRY, R.L. 1968. CENSUS OF STELLER SEA LIONS ON ANO NUEVO ISLAND DURING 1967-1968. UNIV. CALIF., SANTA CRUZ. ANO NUEVO REP. 2:23-25.

EUMETOPIAS

CENSUS DATA INCLUDES NUMBER OF ADULT MALES, FEMALES, SUBADULT MALES, (P,R)
YEARLINGS, PUPS, AND TOTAL COUNTS. ESTIMATES THAT TOTAL NUMBER OF
PUPS BORN ON ANO NUEVO ISLANDS IN 1968 WAS BETWEEN 750-800.

236. GENTRY, R.L. 1970. SOCIAL BEHAVIOR OF THE STELLER SEA LION. PH.D.
THESIS, UNIV. CALIF., SANTA CRUZ. DISS. ABSTR. INTERNATL.:
31(6):5809-B.

RESULTS BASED ON 2600 HOURS OF OBSERVATION ON ANO NUEVO ISLAND (M,P,R)
DURING THE 1967-1969 REPRODUCTIVE SEASONS. INCLUDES POPULATION
SIZE, AGE AND SEX COMPOSITIONS, TIME OF MATING AND BIRTH, PREG-
NANCY RATES, AND MORTALITY RATES.

237. JACKSON, R.A. 1972. A SEA MAMMAL TOUR. AUG. 20, 1972, SAN FRAN-
CISCO SUNDAY EXAMINER & CHRONICLE (CALIF. LIVING MAG.).

PAGES 16-25 CONTAIN A BRIEF ACCOUNT OF WHEN AND WHERE TO OBSERVE (D)
MARINE MAMMALS ALONG THE NORTHER CALIFORNIA COAST. INCLUDES THE
STELLER SEA LION. ALSO INCLUDES A MAP.

238. JAMESON, R.J. AND K.W. KENYON. 1977. PREY OF SEA LIONS IN THE
ROGUE RIVER OREGON. J. MAMMAL. 58(4):672.

BRIEFLY MENTIONS THAT STELLER SEA LIONS OFTEN ENTER THE LOWER REACHES (D,F)
OF RIVERS ALONG THE CALIFORNIA AND OREGON COASTS RESULTING IN
COMPLAINTS FROM FISHERMEN THAT SEA LIONS ARE FEEDING ON ANADROMOUS
SALMONIDS.

239. JENSEN, P.T. AND P.G. SWARTZELL. 1967. THE CALIFORNIA MARINE CATCH
FOR 1965 AND CALIFORNIA SALMON LANDINGS 1952-1965. CALIF.
FISH & GAME, FISH BULL. 135, 57 P.

SEE ANNOTATION UNDER CALIFORNIA SEA LION:(JENSEN AND SWARTZELL, 1967). (F)

240. KENYON, K.W. 1952. THE STELLER SEA LION. PAC. DISC. 5(4):4-13.

BRIEFLY DISCUSSES THE DISTRIBUTION OF STELLER SEA LIONS ALONG THE PA- (D,F)
CIFIC COAST OF NORTH AMERICA. ALSO MENTIONS SOME INTERACTIONS BETWEEN SEA
LIONS AND FISHERMEN INCLUDING AN INCIDENT WHERE A SEA LION WAS KILLED
AT THE MOUTH OF THE KLAMATH RIVER FOR APPARENTLY EATING SALMON.

241. KENYON, K.W. AND D.W. RICE. 1961. ABUNDANCE AND DISTRIBUTION OF
THE STELLER SEA LION. J. MAMMAL. 42(2):223-234.

DISCUSSES SEASONAL MOVEMENTS ALONG THE CALIFORNIA COAST. CONTAINS (D,P)
A TABLE SUMMARIZING POPULATION ESTIMATES THROUGHOUT THEIR RANGE
INCLUDING NORTHERN AND SOUTHERN CALIFORNIA.

EUMETOPIAS

242. KENYON, K.W. AND V.B. SCHEFFER. 1953. THE SEALS, SEA LIONS, AND SEA OTTER OF THE PACIFIC COAST. U.S. FISH WILDL. SERV., WILDL. LEAFL. 344, 28 P.
- BRIEFLY DISCUSSES THE OVERALL RANGE, POPULATION SIZE, BREEDING HABITS, AND FEEDING HABITS OF STELLER SEA LIONS. MENTIONS POSSIBLE FISHERY INTERACTIONS. (D,F,P)
243. KING, J.E. 1964. SEALS OF THE WORLD. LONDON: BRITISH MUSEUM OF NATURAL HISTORY. 154 P.
- PAGES 9-11 BRIEFLY DISCUSS THE OVERALL DISTRIBUTION, POPULATION SIZE, AND GENERAL BIOLOGY OF STELLER SEA LIONS. ALSO INCLUDES A DISTRIBUTION MAP. (D,P)
244. MARINE MAMMAL DIVISION STAFF. 1977. IMPACT OF MARINE MAMMALS ON SALMON STOCKS. U.S. DEPT. COMMER., NOAA (NMFS), NORTHWEST AND ALASKA FISHERIES CENTER, SEATTLE, WA. 23 P.
- DISCUSSES SALMON PREDATION BY STELLER SEA LIONS ALONG THE WESTERN COAST OF NORTH AMERICA. INDICATES THAT THERE IS LITTLE HARD EVIDENCE AVAILABLE TO SUBSTANTIATE COMPLAINTS. (F)
245. MARINE RESOURCE OPERATIONS. 1958. AIRPLANE SPOTTING FLIGHTS 58-3, 58-6, 58-7 AND 58-13. CALIF. DEPT. FISH & GAME, SACRAMENTO, CA.
- SEE ANNOTATION UNDER CALIFORNIA SEA LION: (MARINE RESOURCE OPERATIONS: 1958). (F)
246. MATE, B.R. 1973. POPULATION KINETICS AND RELATED ECOLOGY OF THE NORTHERN SEA LION, EUMETOPIAS JUBATUS, AND THE CALIFORNIA SEA LION, ZALOPHUS CALIFORNIANUS, ALONG THE OREGON COAST. PH. D. THESIS, UNIV. OREGON, EUGENE, OR. 94 P.
- RESULTS OF STUDIES CONDUCTED FROM 1968-1971 ARE PRESENTED. APPENDIX I DISCUSSES THE POPULATION DYNAMICS OF EUMETOPIAS ON OREGON ROOKERIES. INCLUDES INFORMATION ON BIRTH RATE, PUP MORTALITY, AND SUBADULT AND ADULT MORTALITY. (M,R)
247. MATE, B.R. 1975. ANNUAL MIGRATIONS OF THE SEA LIONS EUMETOPIAS JUBATUS AND ZALOPHUS CALIFORNIANUS ALONG THE OREGON COAST. PP. 455-461. IN (RONALD, K. AND A.W. MANSFIELD, EDS.), BIOLOGY OF THE SEAL. INT. COUNC. EXPLOR. SEA, (I.C.E.S.), RAPP. & P.-V. REUN., 169.
- INCLUDES A MAP OF BREEDING RANGES ALONG NORTH AMERICA. DISCUSSES SEASONAL CHANGES AND MIGRATION. (D)

EUMETOPIAS

248. MATE, B.R., 1976. HISTORY AND PRESENT STATUS OF THE NORTHERN (STELLER) SEA LION, EUMETOPIAS JUBATUS. ADVISORY COMM. ON MAR. RESOUR. RES. U.N., F.A.O., ACMRR/MM/SC/66. 4 P.

BREEDING RANGE SPANS FROM 57° NORTH LATITUDE TO 34° NORTH LATITUDE. INCLUDES DATA ON SEASONAL DISTRIBUTION, HISTORIC EXPLOITATION, TRENDS IN ABUNDANCE, POPULATION ESTIMATES, NATURAL POPULATION REGULATORS, AND THE EFFECTS OF MAN.

(D,P)

249. MATE, B.R. 1977. AERIAL CENSUSING OF PINNIPEDS IN THE EASTERN PACIFIC FOR ASSESSMENT OF POPULATION NUMBERS, MIGRATORY DISTRIBUTIONS, ROOKERY STABILITY, BREEDING EFFORT, AND RECRUITMENT. MARINE MAMMAL COMMISSION REPORT MMC-75/01, NTIS PB-265 589. 67 P.

RESULTS OF AERIAL SURVEYS COVERING 21°-51° NORTH LATITUDE FROM AUGUST 1974-AUGUST 1975 ARE REPORTED. INCLUDES POPULATION ESTIMATE FOR NORTHERN SEA LIONS DURING THE BREEDING SEASON AND DURING WINTER. CONTAINS MAPS OF LOCATIONS OF BREEDING AND HAULING OUT AREAS, GRAPHS WITH MAXIMUM COUNTS BY LATITUDE, AND DETAILS OF FLIGHT OBSERVATIONS.

(D,P)

250. MATE, B.R. 1978. WORKSHOP REPORT FOR MARINE MAMMAL FISHERIES INTERACTIONS IN THE EASTERN PACIFIC. MATE, B.R., OREGON STATE UNIV., NEWPORT, OR., FINAL REPORT TO U.S. MARINE MAMMAL COMMISSION FOR CONTRACT MM 8AC-003. 91 P.

SEE ANNOTATION UNDER CALIFORNIA SEA LION: (MATE, 1978).

(F)

251. MATE, B.R. AND R.L. GENTRY. 1976. SPECIES DESCRIPTION NORTHERN (STELLER) SEA LION, EUMETOPIAS JUBATUS. F.A.O., PINNIPED SPECIES SUMMARIES, 177 P.

PAGES 1-4 CONTAIN DATA ON OVERALL RANGE AND POPULATION SIZE, REPRODUCTION, MORTALITY, TROPHIC RELATIONSHIPS, AND RELATIONS TO MAN.

(D,M,P)

252. MATHISEN, O.A. 1959. STUDIES ON STELLER SEA LION (EUMETOPIAS JUBATA) IN ALASKA. TRANS. N. AM. WILD. CONF. 24:346-356.

INCLUDES A CHART CONTAINING THE TOTAL POPULATION ESTIMATE BY AREA FOR THE ENTIRE PACIFIC COAST. MENTIONS THE OBSERVED PUP/ADULT RATIO AND SEX RATIOS FOR ALASKA.

(D,P)

253. MATHISEN, O.A., R.T. BAADE, AND R.J. LOPP. 1962. BREEDING HABITS, GROWTH AND STOMACH CONTENTS OF THE STELLER SEA LION IN ALASKA. J. MAMMAL. 43(4):469-477.

DISCUSSES THE RATIO OF PUPS TO ADULT FEMALES FOR AN UNDERSTANDING OF THE BREEDING POTENTIAL.

(R)

EUMETOPIAS

254. McALLISTER, R. 1976. CALIFORNIA MARINE FISH LANDINGS FOR 1974. CALIF. FISH & GAME, FISH BULL. 166, 53 P.

SEE ANNOTATION UNDER CALIFORNIA SEA LION: (McALLISTER, 1976) (F)

255. MOREJOHN, G.V. 1977. MARINE MAMMALS. PP. 1-74. IN (WINZLER AND KELLY, CONSULTING ENGINEERS), A SUMMARY OF KNOWLEDGE OF THE CENTRAL AND NORTHERN CALIFORNIA COASTAL ZONE AND OFFSHORE AREAS. VOL. 2. BIOLOGICAL CONDITIONS. BOOK 2. B.L.M. WASH, D.C., NTIS PB 274 213/8ST.

PAGES 17-18 CONTAIN INFORMATION ON THE DISTRIBUTION, LIFE HISTORY, BREEDING AREAS, MIGRATION, ECOLOGY, ECONOMIC IMPORTANCE, AND ABUNDANCE OF STELLER SEA LIONS. ALSO INCLUDES A DISTRIBUTION MAP. (D,P)

256. NISHIWAKI, M. 1972. GENERAL BIOLOGY. PP. 3-204. IN (RIDGWAY, S.H., ED.), MAMMALS OF THE SEA. BIOLOGY AND MEDICINE. SPRINGFIELD, ILL: C.C. THOMAS.

PAGES 138-140 DISCUSSES OVERALL DISTRIBUTION, ABUNDANCE, AND RE-PRODUCTION OF THE STELLER SEA LION. MENTIONS THAT IN ANY ONE YEAR THERE ARE A FEW COWS WHICH MAY MISS A PREGNANCY. (D,P,R)

257. ODELL, D.K. 1971. CENSUS OF PINNIPEDS BREEDING ON THE CALIFORNIA CHANNEL ISLANDS. J. MAMMAL. 52(1):187-190.

CONTAINS AERIAL CENSUS DATA FOR STELLER SEA LIONS ON SAN MIGUEL ISLAND WITH REFERENCE TO THE FREQUENCY OF ADULTS AND CALVES DURING JUNE 1964. (P,R)

258. ODEMAR, M. 1978. MARINE MAMMALS/FISHERIES INTERACTIONS. CALIF. DEPT. FISH & GAME, SACRAMENTO, CA. (UNPUBL. MEMOS.).

MENTIONS CONFLICTS BETWEEN SEA LIONS AND LOBSTER FISHERMEN, PURSE-SEINERS FOR MACKEREL AND SQUID, AND SALMON TROLLERS. (F)

259. ORR, R.T. AND T.C. POULTER. 1962. ANO NUEVO MARINE BIOLOGICAL PARK. PAC. DISC. 15(1):13-19.

MENTIONS THAT ANO NUEVO ISLAND IS THE MOST IMPORTANT BREEDING GROUND FOR STELLER SEA LIONS OUTSIDE OF ALASKAN WATERS. (D)

260. ORR, R.T. AND T.C. POULTER. 1965. THE PINNIPED POPULATION OF ANO NUEVO ISLAND, CALIFORNIA. CALIF. ACAD. SCI., PROC., SER. 4, 32(13):377-404.

EUMETOPIAS

RESULTS OF STUDIES CONDUCTED FROM MAY 1961 - MAY 1964 ARE PRESENTED. (M,P,F)
DATA FOR THE STELLER SEA LION INCLUDES ANNUAL POPULATION PEAKS, TOTAL
POPULATION SIZE, AGE AND SEX COMPOSITIONS, NUMBER OF PUPS BORN, AND
BRIEFLY DISCUSSES MORTALITY.

261. ORR, R.T. AND T.C. POULTER. 1967. SOME OBSERVATIONS ON REPRODUCTION,
GROWTH, AND SOCIAL BEHAVIOR IN THE STELLER SEA LION. CALIF.
ACAD. SCI., PROC., SER. 4, 35(10):193-226.

STUDIES WERE CONDUCTED ON ANO NUEVO ISLAND FROM MAY 1961 - MAY 1964. (M,P,F)
DATA INCLUDES SEASONAL OCCURRENCE OF DIFFERENT AGE CLASSES, SEX AND
AGE COMPOSITIONS, AND DISCUSSES MORTALITY.

262. PAULBITSKI, P.A. 1974. PINNIPEDS OBSERVED IN THE RIVERS OF NORTHERN
CALIFORNIA. CALIF. FISH & GAME 60(1):48-49.

MENTIONS THAT STELLER SEA LIONS ENTER THE KLAMATH RIVER AND RANGE (D)
AS FAR INLAND AS THE SOUTH FORK OF THE TRINITY RIVER (HUMBOLDT COUNTY).

263. PETERSON, R.S. 1968. OBSERVATIONS OF SEA LIONS ON LION ROCK, SAN
LUIS OBISPO COUNTY, CALIFORNIA, 1968. UNIV. CALIF., SANTA CRUZ.
2 P. (UNPUBL. REP.).

NINE EUMETOPIAS WERE OBSERVED IN SEPTEMBER 1968. (D,P)

264. PETERSON, R.S., 1968. OBSERVATIONS OF SEA LIONS ON PIEDRAS BLANCAS,
1968. UNIV. CALIF., SANTA CRUZ. 3 P. (UNPUBL. REP.).

CONTAINS CENSUS DATA FOR EUMETOPIAS ON SEVERAL ROCKS OFF THE COAST (D,P)
OF NORTHERN SAN LUIS OBISPO COUNTY IN JUNE AND JULY 1968. COUNTS
WERE MADE ACCORDING TO SEX WHEN POSSIBLE.

265. PETERSON, R.S., R.L. GENTRY, AND B.J. LeBOEUF. 1968. INVESTIGATIONS
OF PINNIPEDS ON SAN MIGUEL AND SAN NICHOLAS ISLANDS, FEBRUARY-
MARCH, 1968. UNIV. CALIF., SANTA CRUZ, MANUSCR.

NOT SEEN. SUPPOSED TO INCLUDE CENSUSES OF STELLER SEA LIONS.

266. PETERSON, R.S. AND B.J. LeBOEUF. 1969. REPORT OF AN EXPEDITION TO
SAN MIGUEL ISLAND, 25-28 MARCH, 1969. UNIV. CALIF., SANTA
CRUZ. 10 P. (UNPUBL. REP.).

ONLY TWO EUMETOPIAS WERE COUNTED DURING A CENSUS MADE ON MARCH 27, 1969. (P)

267. PIKE, G.C. 1958. FOOD OF THE NORTHERN SEA LION. FISH. RES. BD. CAN.,
BIOL. STA., NANAIMO, B.C. PROG. REP. 112: 18-20.

TABULATES FINDINGS OF FIVE STUDIES TOTALING 164 STOMACHS. (F)

EUMETOPIAS

268. PIKE, G.C. AND B.E. MAXWELL. 1958. THE ABUNDANCE AND DISTRIBUTION OF THE NORTHERN SEA LION (EUMETOPIAS JUBATA) ON THE COAST OF BRITISH COLUMBIA. J. FISH. RES. BD. CAN. 15(1):5-17.

DISCUSSES PREGNANCY RATE AND NATURAL MORTALITY FACTORS. (M,R)

269. RIPLEY, W.E., K.W. COX, AND J.L. BAXTER. 1962. CALIFORNIA SEA LION CENSUS FOR 1958, 1960, AND 1961. CALIF. FISH & GAME 48(4): 228-231.

CONTAINS STELLER SEA LION CENSUSES OF ROOKERIES AND HAULING OUT GROUNDS WITH A COMPARISON TO DISTRIBUTION IN PREVIOUS YEARS. (D,P)

270. ROWLEY, J. 1929. LIFE HISTORY OF THE SEA LIONS ON THE CALIFORNIA COAST. J. MAMMAL. 10(1):1-36.

DISCUSSES HISTORICAL DISTRIBUTION AND POPULATION SIZE OF THE STELLER SEA LION. BRIEFLY MENTIONS IMPACT ON FISHERIES. INCLUDES MAP OF ROOKERIES. (D,P)

271. SANDEGREN, F.E. 1970. BREEDING AND MATERNAL BEHAVIOR OF THE STELLER SEA LION (EUMETOPIAS JUBATA) IN ALASKA. M.S. THESIS, UNIV. OF ALASKA. 138 P.

DISCUSSES THE BEHAVIOR OF EUMETOPIAS FEMALES WITH DETAILS ON PUPPING, NURSING, AND PUP MORTALITY. (M,P,R)

272. SCHEFFER, V.B., 1958. SEALS, SEA LIONS, AND WALRUSES. A REVIEW OF THE PINNIPEDIA. STANFORD, CA.: STANFORD UNIV. PRESS. 179 P.

PAGES 56-59 DISCUSS THE OVERALL RANGE AND POPULATION SIZE OF THE STELLER SEA LION. INCLUDES A DISTRIBUTION MAP. (D,P)

273. SMITH, H.M. 1904. REPORT ON THE INQUIRY RESPECTING FOOD FISHES AND THE FISHING-GROUNDS. U.S. BUR. FISH., REP. (1902):111-119.

DISCUSSES STELLER SEA LION/FISHERY INTERACTIONS. (F)

274. SPAULDING, D.J. 1964. COMPARATIVE FEEDING HABITS OF THE FUR SEAL, SEA LION, AND HARBOUR SEAL ON THE BRITISH COLUMBIA COAST. FISH. RES. BD. CAN., BULL. 146, 51 P.

393 STELLER SEA LION SPECIMENS WERE STUDIED. EMPHASIS WAS PLACED ON COMMERCIAL FISH SPECIES WITH HERRING AND SALMON MAKING UP 10% AND 5.6% OF THE DIET RESPECTIVELY. (F)

EUMETOPIAS

275. STARKS, E.C. 1918. THE SEA LIONS OF CALIFORNIA. AM. MUS. J. 18(3):226-237.

CONTAINS THE HISTORY OF SEA LIONS OF CALIFORNIA, ESPECIALLY AT ANO NUEVO ISLAND.

(D,P)

276. STARKS, E.C. 1921. NOTES ON THE SEA LIONS. CALIF. FISH & GAME 7(4):250-253.

DISCUSSES OVERALL BREEDING RANGE OF STELLER SEA LIONS. NOTES THE NUMBER OF PUPS BORN ON ANO NUEVO ISLAND IN 1902 AND 1920. ROOKERY SEEMS TO BE REGAINING ITS FORMER SIZE.

(D,P)

277. TALENT, L.G. AND C.L. TALENT. 1975. AN EXTRAUTERINE FETUS IN THE STELLER SEA LION, EUMETOPIAS JUBATA. CALIF. FISH & GAME 61(4):233-234.

AN ACCOUNT OF A DEAD FEMALE WASHED ASHORE NEAR MONTEREY BAY. CAUSE OF DEATH COULD NOT BE DETERMINED.

(D)

278. THORSTEINSON, F.V., AND C.J. LENSINK. 1962. BIOLOGICAL OBSERVATIONS OF STELLER SEA LIONS TAKEN DURING AN EXPERIMENTAL HARVEST. J. WILDL. MANAGE. 26(4):353-359.

RESULTS OF STUDIES CONDUCTED IN ALASKA ARE PRESENTED. INCLUDES PREGNANCY RATE, FOOD HABITS, AND NATURAL MORTALITY RATE.

(M,R)

279. TOWNSEND, C.H. 1918. SEA LIONS AND THE FISHING INDUSTRY. NEW YORK ZOOL. SOC., BULL 21(6):1679-1682.

BRIEF DISCUSSION ON STELLER SEA LION/FISHERY INTERACTIONS IN BRITISH COLUMBIA IN 1915-1916. MENTIONS INTERACTIONS ALONG THE PACIFIC COAST OF THE U.S.

(F)

280. U.S. DEPARTMENT OF COMMERCE. 1978. REPORT OF THE SECRETARY OF COMMERCE ON ADMINISTRATION OF THE MARINE MAMMAL PROTECTION ACT OF 1972. ANNUAL REPORT, APRIL 1, 1977 TO MARCH 31, 1978. PREPARED BY NOAA/NMFS. 183 P.

PAGES 45-48 DISCUSS THE OVERALL DISTRIBUTION, ABUNDANCE, GENERAL BIOLOGY, AND ALLOCATION PROBLEMS FOR STELLER SEA LIONS.

(D,F,P)

281. U.S. GEOLOGICAL SURVEY. 1976. MARINE MAMMALS. PP. 303-320. IN FINAL ENVIRONMENTAL STATEMENT OIL AND GAS DEVELOPMENT IN THE SANTA BARBARA CHANNEL OUTER CONTINENTAL SHELF OFF CALIFORNIA. VOL. 2 OF 3. U.S. DEPT. INTER.

EUMETOPIAS

PAGE 305 CONTAINS THE STELLER SEA LION POPULATION ESTIMATE OFF THE CALIFORNIA COAST. PAGE 318 CONTAINS A CHART SHOWING THE APPROXIMATE TIMES OF STELLER SEA LION ACTIVITY ON THE SANTA BARBARA CHANNEL ISLANDS. (P)

MIROUNGA ANGUSTIROSTRIS - NORTHERN ELEPHANT SEAL

82. AINLEY, D.G., H.R. HUBER, R.P. HENDERSON, AND T.J. LEWIS. 1977.
STUDIES OF MARINE MAMMALS AT THE FARALLON ISLANDS, CALIFORNIA,
1970-1975. MARINE MAMMAL COMMISSION REPORT MMC-74/04, NTIS
PB 274 046. 42 P.
- CONTAINS DATA ON SEX DISTRIBUTIONS, FREQUENCY OF ADULTS AND CALVES, (D,M,P,R)
MORTALITY RATES, AND POPULATION SIZE FOR THE NORTHERN ELEPHANT
SEAL. INCLUDES A COMPARISON OF BREEDING ANIMALS ON ANO NUEVO AND
FARALLON ISLANDS.
83. AINLEY, D.G., H.R. HUBER, R.P. HENDERSON, T.J. LEWIS, AND S.H.
MORRELL. 1977. STUDIES OF MARINE MAMMALS AT THE FARALLON
ISLANDS, CALIFORNIA, 1975-1976. MARINE MAMMAL COMMISSION
REPORT MMC-75/02, NTIS PB 266 249. 32 P.
- CONTAINS DATA ON AGE AND SEX DISTRIBUTIONS, NUMBER OF PUPS BORN, (D,M,P,R)
PREGNANCY RATES, AND MORTALITY FOR NORTHERN ELEPHANT SEALS. MENTIONS
THAT OVERALL POPULATION SIZE HAS INCREASED.
84. AINLEY, D.G., H.R. HUBER, S. MORRELL, AND R.H. LEVALLEY. 1978.
STUDIES AT THE FARALLON ISLANDS, 1977. FINAL REP., MARINE
MAMMAL COMM., CONTRACT NO. MM6AC027, WASH., D.C.
- NOT SEEN.
85. AINLEY, D.G., C.S. STRONG, H.R. HUBER, T.J. LEWIS, AND S.H. MORRELL.
1978. PREDATION BY SHARKS ON PINNIPEDS AT THE FARALLON ISLANDS.
APPENDIX I IN STUDIES AT THE FARALLON ISLANDS, 1977. FINAL REP.,
MARINE MAMMAL COMM., CONTRACT NO. MM6AC027, WASH., D.C.
- CONTAINS INFORMATION ON 36 SHARK RELATED ATTACKS INCLUDING 22 ATTACKS (M)
ON PINNIPEDS AND 14 SIGHTINGS OF SHARKS. THE MOST COMMONLY ATTACKED
PINNIPED WAS MIROUNGA AND THE MAJORITY OF ATTACKS INVOLVED GREAT
WHITE SHARKS.
86. AMERICAN SOCIETY OF MAMMALOGISTS. 1973. REPORT OF STANDING
COMMITTEE, MARINE MAMMALS 1972-1973. IN AMERICAN SOCIETY
OF MAMMALOGISTS, 53RD ANNU. MEET. AM. SOC. MAMMAL., ASILOMAR,
CA. 13-17 JUNE 1973. SEATTLE, WA. 43 P.
- PAGE 33 GIVES POPULATION ESTIMATE FOR NORTHERN ELEPHANT SEALS (M,P,R)
ON SAN MIGUEL ISLAND. INCLUDES AGE AND SEX COMPOSITIONS AND NUMBER OF
DEAD PUPS COUNTED. LIVE PUP COUNT IN 1973 WAS 23% GREATER THAN IN
1972.
87. ANONYMOUS. 1925. ARE ELEPHANT SEALS DESTRUCTIVE? CALIF. FISH & GAME
11(2):78-79.

MIROUNGA

BRIEFLY DESCRIBES A COMPLAINT FROM FISHERMEN IN THE SAN DIEGO VICINITY (F)
THAT ELEPHANT SEALS FROM GUADALUPE ISLANDS MAKE EXCURSIONS INTO
CALIFORNIA WATERS AND PLAY HAVOC WITH SARDINE AND TUNA FISHES.

288. ANONYMOUS. 1939. THE NORTHERN ELEPHANT SEAL IN CALIFORNIA.
J. MAMMAL. 20/21:285-286.

RECORDED SIGHTING OF 16 ELEPHANT SEALS ON SAN MIGUEL ISLAND IN (D)
SEPTEMBER 1938.

289. ANONYMOUS. 1978. WILDLIFE FIRST, SEAL IN TOWN. NOV. 12, 1978, SAN
DIEGO UNION (SPORTS SECTION).

NOTES THE SIGHTING OF A YOUNG ELEPHANT SEAL IN NORTHERN CALIFORNIA, (D)
FIVE MILES UP THE EEL RIVER IN A PASTURE.

290. ANTHONY, A.W. 1921. THE ELEPHANT SEAL OFF SANTA CRUZ ISLAND,
CALIFORNIA. J. MAMMAL. 2(2):112-113.

SIGHTING RECORD OF AN ELEPHANT SEAL IN CALIFORNIA WATERS. (D)

291. BALDRIDGE, A. 1970. BIRD AND MARINE MAMMAL OBSERVATIONS. IN
STANFORD UNIV. HOPKINS MAR. STN., PAC. GROVE, CA., ANN.
REP., 1969. CALCOFI HYDROGRAPHIC DATA.

INCLUDES TWO SIGHTINGS OF NORTHERN ELEPHANT SEALS IN MONTEREY BAY (D,E)
REGION. INCLUDES CRUISE TRACK AND DATES FOR EFFORT RECORD.

292. BALDRIDGE, A. 1971. OBSERVATIONS OF MARINE MAMMALS, 1970. PP.
47-49. IN STANFORD UNIV. HOPKINS MAR. STN., PAC. GROVE,
CA., ANN. REP., 1970. CALCOFI HYDROGRAPHIC DATA.

INCLUDES ELEVEN SIGHTINGS OF NORTHERN ELEPHANT SEALS IN MONTEREY (D,E)
BAY REGION. INCLUDES CRUISE TRACK AND DATES FOR EFFORT RECORD.

293. BALDRIDGE, A. 1972. MONTEREY BAY REGION MARINE MAMMAL OBSERVA-
TIONS, 1971. PP 57-60. IN STANFORD UNIV. HOPKINS MAR, STN.,
PAC. GROVE, CA., ANN. REP., 1971. CALCOFI HYDROGRAPHIC DATA.

INCLUDES ELEVEN SIGHTINGS OF NORTHERN ELEPHANT SEALS. INCLUDES (D,E)
CRUISE TRACK AND DATES FOR EFFORT RECORD.

294. BALDRIDGE, A. 1973. MONTEREY BAY REGION MARINE MAMMAL OBSERVATIONS,
1972. PP. 30-33. IN STANFORD UNIV. HOPKINS MAR. STN., PAC.
GROVE, CA., ANN. REP., 1972. CALCOFI HYDROGRAPHIC DATA.

INCLUDES TWENTY SIGHTINGS OF NORTHERN ELEPHANT SEALS. INCLUDES (D,E)
CRUISE TRACK AND DATES FOR EFFORT RECORD.

MIROUNGA

5. BARTHOLOMEW, G.A. 1951. SPRING, SUMMER, AND FALL CENSUSES OF THE PINNIPEDS ON SAN NICHOLAS ISLAND, CALIFORNIA. J. MAMMAL. 32(1):15-21.

CONTAINS DATA FROM SIX CENSUSES FOR NORTHERN ELEPHANT SEALS FROM MAY 1949 TO APRIL 1950. (P)

6. BARTHOLOMEW, G.A., JR. 1952. REPRODUCTIVE AND SOCIAL BEHAVIOR OF THE NORTHERN ELEPHANT SEAL. UNIV. CALIF. PUBL. ZOOL. 47:369-472.

RESULTS OF STUDIES CONDUCTED IN 1949-50 ON GUADALUPE, SAN BENITO, SAN NICHOLAS, AND LOS CORONADOS ISLANDS ARE PRESENTED. DATA INCLUDES SEX AND AGE COMPOSITIONS, LIVE PUP COUNTS, AND DEAD PUP COUNTS ON GUADALUPE AND SAN BENITO ISLANDS DURING THE BREEDING SEASON. MENTIONS POPULATION STRUCTURE ON SAN NICHOLAS ISLAND DURING THE NONBREEDING SEASON. (D,M,P,R)

7. BARTHOLOMEW, G.A. 1955. THE NORTHERN ELEPHANT SEAL. ZOONOOZ 28(1):6-9.

DISCUSSES GENERAL BIOLOGY AND OVERALL DISTRIBUTION. (D)

8. BARTHOLOMEW, G.A., JR. 1967. SEAL AND SEA LION POPULATIONS OF THE CALIFORNIA ISLANDS. PP. 229-244. IN (PHILBRICK, R.N., ED.), PROC. SYMP. ON THE BIOLOGY OF THE CALIFORNIA ISLANDS. SANTA BARBARA BOTANIC GARDEN.

DISCUSSES THE PRESENT STATUS, HISTORY, AND POSSIBLE FUTURE OF THE NORTHERN ELEPHANT SEAL. (D,P)

9. BARTHOLOMEW, G.A. AND R.A. BOOTLOOTIAN. 1960. NUMBERS AND POPULATION STRUCTURE OF THE PINNIPEDS ON THE CALIFORNIA CHANNEL ISLANDS. J. MAMMAL. 41(3):366-375.

DISCUSSES DISTRIBUTION OF NORTHERN ELEPHANT SEALS. CONTAINS CENSUS DATA BY ISLAND WITH AGE AND SEX COMPOSITIONS FOR 1958-1959. SHOWS THAT POPULATION HAS INCREASED SINCE 1938. (D,M,P,R)

10. BARTHOLOMEW, G.A. AND C.L. HUBBS. 1960. POPULATION GROWTH AND SEASONAL MOVEMENTS OF THE NORTHERN ELEPHANT SEAL, MIROUNGA ANGUSTIROSTRIS. MAMMALIA 24(3):313-324.

PRESENTS A POPULATION HISTORY BASED ON SIGHTINGS FROM 1880-1958 FROM SOUTHERN CALIFORNIA AND BAJA CALIFORNIA. INCLUDES TOTAL OVERALL POPULATION SIZE FOR 1960. (D,P)

MIROUNGA

301. BONNELL, M.L. AND R.K. SELANDER. 1974. ELEPHANT SEALS: GENETIC VARIATION AND NEAR EXTINCTION. SCIENCE, (NEW YORK), 184(4139): 908-909.

DISCUSSES OVERALL RANGE AND TOTAL PRESENT POPULATION SIZE.

(D,P)

302. BONNOT, P. 1951. SEA LIONS, SEALS, AND SEA OTTER OF THE CALIFORNIA COAST. CALIF. FISH & GAME 37(4):371-389.

STATES PAST AND PRESENT RANGE OF NORTHERN ELEPHANT SEALS. NOTES SIGHTINGS ON CALIFORNIA ISLANDS AND POPULATION SIZE ON GUADALUPE ISLAND.

(D,P)

303. BRIGGS, K.T. AND B.J. LeBOEUF. 1975. PUP MORTALITY IN A GROWING COLONY OF ELEPHANT SEALS. AM. ZOOL. 15(3):821.

DISCUSSES PUP MORTALITIES OVER 8 BREEDING SEASONS ON ANO NUEVO ISLAND. MENTIONS THAT BIRTHS HAVE TRIPLED FROM 1968 TO 1975. STATES MORTALITY RATE.

(M,R)

304. BROWN, D. UNPUBLISHED MIROUNGA DATA. PT. REYES NATL. SEASHORE, PT. REYES, CALIF.

DURING INTERMITTENT SEA LION CENSUSES AT PT. REYES IN 1968-1969 INCIDENTAL ELEPHANT SEAL SIGHTINGS WERE ALSO RECORDED. A MAP IS AVAILABLE SHOWING A POSSIBLE ELEPHANT SEAL HAULING OUT AREA WITHIN THE PARK.

(D)

305. BROWNELL, R.L., JR., R.L. DeLONG, AND R.W. SHREIBER. 1974. PINNIPED POPULATIONS AT ISLAS DE GUADALUPE, SAN BENITO, CEDROS, AND NATIVIDAD, BAJA CALIFORNIA, IN 1968. J. MAMMAL. 55:469-472.

CONTAINS CENSUS DATA ON NUMBERS OF ELEPHANT SEALS SEEN IN APRIL AND JUNE OF 1968.

(D,P)

306. BUREAU OF LAND MANAGEMENT. 1975. MARINE MAMMALS. PP. 407-445. IN FINAL ENVIRONMENTAL STATEMENT PROPOSED 1975 OUTER CONTINENTAL SHELF OIL AND GAS GENERAL LEASE SALE OFFSHORE SOUTHERN CALIFORNIA. VOL. 1 OF 5. U.S. DEPT. INTER.

PAGES 436-445 INCLUDE INFORMATION ON RANGE, POPULATION SIZE, LIFE HISTORY, AND DISEASES OF NORTHERN ELEPHANT SEALS. INCLUDES MAPS OF BREEDING AND HAULING OUT GROUNDS.

(D,P)

307. BUREAU OF MARINE FISHERIES. 1947. CALIFORNIA SEA LION CENSUS FOR 1946. CALIF. FISH & GAME. 33(1):19-22.

CONTAINS CENSUS DATA FOR NORTHERN ELEPHANT SEALS BASED ON GROUND AND AERIAL SURVEYS.

(D,P)

MIROUNGA

08. CARLISLE, J.R. 1973. THE CENSUS OF NORTHERN ELEPHANT SEALS ON SAN MIGUEL ISLAND, 1965-1973. CALIF. FISH & GAME. 59(4):311-313.
- CONTAINS POPULATION ESTIMATES (P)
09. CARLISLE, J.R. AND J.A. APLIN. 1966. SEA LION CENSUS FOR 1965, INCLUDING COUNTS OF OTHER CALIFORNIA PINNIPEDS. CALIF. FISH & GAME. 52(2):119-120.
- INCLUDES COUNTS OF NORTHERN ELEPHANT SEALS ON SAN MIGUEL, ANO NUEVO, SAN NICOLAS, AND SAN CLEMENTE ISLANDS. (D,P)
10. CARLISLE, J.G. AND J.A. APLIN. 1971. SEA LION CENSUS FOR 1970, INCLUDING COUNTS OF OTHER CALIFORNIA PINNIPEDS. CALIF. FISH & GAME 57(3):124-126.
- NORTHERN ELEPHANT SEAL COUNTS WERE INCLUDED IN AERIAL SURVEY OF CALIFORNIA ISLANDS. COMPARES POPULATION SIZES FOR 1965, 1969, AND 1970. (D,P)
11. CARRICK, R., S.E. CSORDAS, AND S.E. INGHAM. 1962. STUDIES ON THE SOUTHERN ELEPHANT SEAL, MIROUNGA LEONINA (L.). 4. BREEDING AND DEVELOPMENT. COMMONW. SCI. & IND. RES. ORGAN., CANBERRA, AUSTRALIA, (C.R.I.R.O.), WILDL. RES. 7(2):161-197. (CITED FROM: BIO. ABSTR. 41:8459).
- DISCUSSES AGE OF SEXUAL MATURITY AND PREGNANCY RATES. DATA MAY BE RELEVANT TO THE NORTHERN ELEPHANT SEAL. (R)
12. CARRICK, R. AND S.E. INGHAM. 1960. ECOLOGICAL STUDIES OF THE SOUTHERN ELEPHANT SEAL, MIROUNGA LEONINA (L.), AT MACQUARIE ISLAND AND HEARD ISLAND. MAMMALIA 24:325-342.
- DISCUSSES AGE OF SEXUAL MATURITY AND NATURAL MORTALITY. DATA MAY BE RELEVANT TO THE NORTHERN ELEPHANT SEAL. (M,R)
13. CARRICK, R. AND S.E. INGHAM. 1962. STUDIES ON THE SOUTHERN ELEPHANT SEAL, MIROUNGA LEONINA (L.). 5. POPULATION DYNAMICS AND UTILIZATION. COMMONW. SCI. & IND. RES. ORGAN., CANBERRA, AUSTRALIA, (C.S.I.R.O.), WILDL. RES. 7(2):198-206. (CITED FROM: BIO. ABSTR. 41:17230.)
- DISCUSSES MORTALITY RATES. DATA MAY BE RELEVANT TO THE NORTHERN ELEPHANT SEAL. (M)
14. COLLYER, R.D. AND J.L. BAXTER. 1951. OBSERVATIONS ON PINNIPEDS OF SAN MIGUEL ISLAND. CALIF. FISH & GAME 37(4):511.

MIROUNGA

CONTAINS A POPULATION ESTIMATE FOR NORTHERN ELEPHANT SEALS IN MAY OF 1951 WITH REFERENCE TO THE NUMBER OF BULLS AND COWS. (P)

315. FREY, H.W. AND J.A. APLIN. 1970. SEA LION CENSUS FOR 1969, INCLUDING COUNTS OF OTHER CALIFORNIA PINNIPEDS. CALIF. FISH & GAME 56(2):130-133.

CONTAINS A CHART SHOWING DISTRIBUTION AND NUMBERS OF NORTHERN ELEPHANT SEALS ON SAN MIGUEL, SAN CLEMENTE, AND SAN NICHOLAS ISLANDS AND POINT ANO NUEVO DURING 1965 AND 1969. (D,P)

316. GOGAN, P.J. 1977. A REVIEW OF THE POPULATION ECOLOGY OF THE NORTHERN ELEPHANT SEAL (MIROUNGA ANGUSTIROSTRIS). U.S. DEPT. COMMER., NOAA (NMFS), NORTHWEST AND ALASKA FISHERIES CENTER, SEATTLE, WASH. 68 P.

CONTAINS A DETAILED DISCUSSION ON NORTHERN ELEPHANT SEALS. INCLUDES INFORMATION ON DISTRIBUTION, ANNUAL POPULATION CYCLES, OCEANIC SIGHTINGS, FOOD HABITS, REPRODUCTION, NATURAL MORTALITY, POPULATION ESTIMATES, AGE AND SEX STRUCTURES, AND CONSERVATION MEASURES. STATES TOTAL POPULATION SIZE IN THE EARLY 1970'S AS 31,500-37,000 ANIMALS. (D,M,P)

317. HUEY, L.M. 1930. CAPTURE OF AN ELEPHANT SEAL OFF SAN DIEGO, CALIFORNIA, WITH NOTES ON STOMACH CONTENTS. J. MAMMAL. 11(2):229-231.

RECORD OF A NORTHERN ELEPHANT SEAL KILLED OFF POINT LOMA, CALIFORNIA. (D,F)

318. JACKSON, R.A. 1972. A SEA MAMMAL TOUR. AUG. 20, 1972, SAN FRANCISCO SUNDAY EXAMINER & CHRONICLE (CALIF, LIVING MAG.).

PAGES 16-25 CONTAIN A BRIEF ACCOUNT OF WHEN AND WHERE TO OBSERVE MARINE MAMMALS ALONG THE NORTHERN CALIFORNIA COAST. INCLUDES THE NORTHERN ELEPHANT SEAL. ALSO INCLUDES A MAP. (D)

319. JOHNSON, A.M. 1976. POPULATION INCREASE AND CHANGES IN DISTRIBUTION OF THREE SPECIES OF MARINE MAMMALS IN THE NORTH PACIFIC OCEAN. ADVISORY COMM. ON MAR. RESOUR. RES. U.N., F.A.O., ACMRR/MM/SC/108. 7 P. BERGEN, NORWAY, 31 AUG. - 9 SEPT. 1976.

DISCUSSES THE RE-ESTABLISHMENT OF FORMER BREEDING GROUNDS AND THE INCREASE IN THE OVERALL POPULATION SIZE OF NORTHERN ELEPHANT SEALS. INCLUDES THE AVERAGE ANNUAL INCREASE IN NUMBER OF PUPS BORN FROM 1961-1968 ON ANO NUEVO ISLAND, FROM 1969-1971 ON SAN NICHOLAS ISLAND, AND FROM 1958-1976 ON SAN MIGUEL ISLAND. (D,P,F)

MIROUNGA

320. JOHNSON, A.M. AND R.L. DeLONG. 1976. INCREASE IN THE NORTHERN ELEPHANT SEAL POPULATION ON SAN MIGUEL ISLAND, CALIFORNIA. U.S. DEPT. COMMER., NOAA (NMFS), NORTHWEST FISHERIES CENTER, SEATTLE, WA. 10 P. (UNPUBL. MANUSCR.).

NOT SEEN. SUPPOSED TO INCLUDE DATA ON PUP PRODUCTION, DISTRIBUTION OF BREEDING AND NONBREEDING ANIMALS, AND DENSITY DURING JANUARY AND FEBRUARY 1976.

321. KENYON, K.W. AND V.B. SCHEFFER. 1953. THE SEALS, SEA LIONS, AND SEA OTTER OF THE PACIFIC COAST. U.S. FISH WILDL. SERV., WILDL. LEAFL. 344, 28 P.

BRIEFLY DISCUSSES OVERALL RANGE, BREEDING HABITS, AND FEEDING HABITS OF NORTHERN ELEPHANT SEALS. (D)

322. KING, J.E. 1964. SEALS OF THE WORLD. LONDON: BRITISH MUSEUM OF NATURAL HISTORY. 154 P.

PAGES 81-83 DISCUSS OVERALL DISTRIBUTION, POPULATION SIZE, AND GENERAL BIOLOGY OF NORTHERN ELEPHANT SEALS. INCLUDES A DISTRIBUTION MAP. (D,P)

323. LAWS, R.M. 1953. THE ELEPHANT SEAL (MIROUNGA LEONINA LINN.) 1. GROWTH AND AGE. FALKLAND ISL. DEPEND. SURV., SCI. REP. 8: 1-62.

CONTAINS INFORMATION ON MORTALITY RATES FOR SOUTHERN ELEPHANT SEAL PUPS ON LAND. DATA MAY BE RELEVANT TO THE NORTHERN ELEPHANT SEAL. (M)

324. LAWS, R.M. 1956. THE ELEPHANT SEAL (MIROUNGA LEONINA LINN.) 2. GENERAL, SOCIAL, AND REPRODUCTIVE BEHAVIOR. FALKLAND ISL. DEPEND. SURV., SCI. REP. 13:1-88.

DISCUSSES AGE DISTRIBUTIONS, SEX RATIOS AT BIRTH, AND AGE OF SEXUAL MATURITY FOR MALE AND FEMALE SOUTHERN ELEPHANT SEALS. DATA MAY BE RELEVANT TO THE NORTHERN ELEPHANT SEAL. (R)

325. LAWS, R.M. 1956. THE ELEPHANT SEAL (MIROUNGA LEONINA LINN.) 3. THE PHYSIOLOGY OF REPRODUCTION. FALKLAND ISL. DEPEND SURV., SCI. REP. 15:1-65.

DISCUSSES THE AVERAGE NUMBER OF PREGNANCIES FOR THE SOUTHERN ELEPHANT SEAL IN HER LIFETIME AND THE AGE OF SEXUAL MATURITY FOR BOTH SEXES. DATA MAY BE RELEVANT TO THE NORTHERN ELEPHANT SEAL. (R)

326. LAWS, R.M. 1960. THE SOUTHERN ELEPHANT SEAL (MIROUNGA LEONINA LINN.) AT SOUTH GEORGIA. NORSK HVALF. TID. 49:466-476, 520-542.

MIROUNGA

DISCUSSES PREGNANCY RATE FOR THE SOUTHERN ELEPHANT SEAL AND CONSTRUCTS LIFE TABLES FOR MALES AND FEMALES INCLUDING NATURAL MORTALITY RATES. DATA MAY BE RELEVANT TO THE NORTHERN ELEPHANT SEAL. (M,R)

327. LeBOEUF, B.J. 1968. REPORT OF A VISIT TO SAN MIGUEL ISLAND, 25-26 OCTOBER, 1968. UNIV. CALIF., SANTA CRUZ. 3 P. (UNPUBL. REP.).

APPROXIMATELY EIGHT MIROUNGA WERE OBSERVED IN OCTOBER 1968. (P)

328. LeBOEUF, B.J. 1970. REPORT OF AN EXPEDITION TO SAN MIGUEL ISLAND, 24-25 MARCH 1970. UNIV. CALIF, SANTA CRUZ. 2 P. (UNPUBL. REP.).

REPORTS NUMBER OF ELEPHANT SEAL TAGGED IN 1963, 1969, AND 1970. THE 1970 POPULATION WAS COMPRISED OF THE FOLLOWING: 80% PUPS, 19% JUVENILES AND ADULT FEMALES, AND 1% ADULT AND SUBADULT MALES. THE ESTIMATED PUP POPULATION NUMBERED ABOUT 2500. (D,P,R)

329. LeBOEUF, B.J. 1971. OIL CONTAMINATION AND ELEPHANT SEAL MORTALITY: A "NEGATIVE" FINDING. VOL. 1:277-285. IN (STRAUGHAN, D., ED.), BIOLOGICAL AND OCEANOGRAPHICAL SURVEY OF THE SANTA BARBARA CHANNEL OIL SPILL, 1969-1970. UNIV. SO. CALIF., ALLAN HANCOCK FOUNDATION.

INCLUDES ELEPHANT SEAL SIGHTING DATA GATHERED DURING A FOLLOW-UP STUDY ON THE EFFECTS OF THE OIL SPILL. (D)

330. LeBOEUF, B.J. 1972. SEXUAL BEHAVIOR IN THE NORTHERN ELEPHANT SEAL, MIROUNGA ANGUSTIROSTRIS. BEHAVIOR 41(1-2):1-26.

CONTAINS RESULTS OF RESEARCH CONDUCTED ON ANO NUEVO ISLAND DURING THE 1968, 69, AND 70 BREEDING SEASONS. DATA INCLUDES THE FREQUENCY OF ADULTS AND CALVES, THE NUMBER OF BREEDING MALES AND FEMALES, AND REPRODUCTIVE DATA ON FEMALES. MENTIONS THE PREGNANCY RATE OF FEMALES THAT ARRIVE. (R)

331. LeBOEUF, B.J. 1974. MALE-MALE COMPETITION AND REPRODUCTIVE SUCCESS IN ELEPHANT SEALS. AM. ZOOL. 14:163-176.

CONTAINS INFORMATION ON THE REPRODUCTIVE SUCCESS OF FEMALES, THE ANNUAL MORTALITY OF MALES, AND PUP MORTALITY. DESCRIBES HOW MANY PUPS THE MOST SUCCESSFUL FEMALE CAN PRODUCE IN A LIFETIME. DATA WAS GATHERED DURING SIX BREEDING SEASONS FROM 1968-1973 ON ANO NUEVO ISLAND. (M,R)

332. LeBOEUF, B.J. 1976. SPECIES DESCRIPTION NORTHERN ELEPHANT SEAL, MIROUNGA ANGUSTIROSTRIS. F.A.O., PINNIPED SPECIES SUMMARIES, 177 P.

MIROUNGA

PAGES 143-149 CONTAIN DATA ON OVERALL RANGE AND POPULATION SIZE, PREGNANCY RATES, NATURAL MORTALITY RATES, TROPHIC RELATIONSHIPS, AND RELATIONS TO MAN. (D,M,P,R)

333. LeBOEUF, B.J. 1977. BACK FROM EXTATION. PAC. DISC. 30(5):1-9.

PRESENTS DATA GATHERED FROM 12 ISLANDS ALONG THE COASTS OF CALIFORNIA AND BAJA CALIFORNIA WHERE NORTHERN ELEPHANT SEALS ARE KNOWN TO BREED. INCLUDES FREQUENCY OF FEMALES AT PEAK SEASON, TOTAL POPULATION SIZE, REPRODUCTIVE POTENTIAL, AND PUP MORTALITY RATES. MAP OF BREEDING GROUNDS INCLUDED. (D,M,P,R)

334. LeBOEUF, B.J., D.G. AINLEY, AND T.J. LEWIS. 1974. ELEPHANT SEALS ON THE FARALLONS: POPULATION STRUCTURE OF AN INCIPIENT BREEDING COLONY. J. MAMMAL. 55(2):370-385.

GROUND COUNTS AND TAGGING METHODS WERE USED TO STUDY POPULATION COMPOSITION. CENSUS DATA WAS COMPARED TO COUNTS ON OTHER ISLANDS SUCH AS ANO NUEVO. DISCUSSES INTER-ISLAND MOVEMENTS AND CONTAINS A MAP OF OFFSHORE ROOKERIES. (D,P)

335. LeBOEUF, B.J. AND K.T. BRIGGS. 1977. THE COST OF LIVING IN A SEAL HAREM. MAMMALIA 41(2):167-196.

RESULTS OF STUDIES CONDUCTED IN THE WINTERS OF 1973, 74, AND 75 ON ANO NUEVO ISLAND ARE PRESENTED. DATA ON NORTHERN ELEPHANT SEALS INCLUDES FREQUENCY OF ADULTS AND CALVES, THE NUMBER OF PUPS BORN ANNUALLY SINCE 1961, AND PUP MORTALITY RATES FROM 1968 TO 1976. (M,P,R)

336. LeBOEUF, B.J., D.A. COUNTRYMAN, AND C.L. HUBBS. 1975. RECORDS OF ELEPHANT SEALS, MIROUNGA ANGUSTIROSTRIS, ON LOS CORONADOS ISLANDS, BAJA CALIFORNIA, MEXICO, WITH RECENT ANALYSIS OF THE BREEDING POPULATION. SAN DIEGO SOC. NAT. HIST., TRANS. 18(1):1-8.

CONTAINS DATA ON THE NUMBER OF PUPS BORN AND THE PUP MORTALITY RATE FOR 1974 AND 1975. CENSUS DATA FROM 1936-1975 INCLUDES SEX OR AGE ESTIMATION. (M,R)

337. LeBOEUF, B.J. AND B.R. MATE. 1978. ELEPHANT SEALS COLONIZE ADDITIONAL MEXICAN AND CALIFORNIAN ISLANDS. J. MAMMAL. 59(3):621-622.

ELEPHANT SEALS WERE KNOWN TO BREED ON 9 ISLANDS IN 1976. IT IS NOW REPORTED THAT PUPS HAVE BEEN BORN ON 3 MORE ISLANDS IN RECENT YEARS. ON SAN CLEMENTE ISLAND, CALIFORNIA, AT LEAST ONE FEMALE, NURSING A NEWBORN PUP, AND FOUR JUVENILES OR SUBADULT MALES WERE SEEN IN JANUARY 1977. (D)

MIROUNGA

338. LeBOEUF, B.J. AND K.J. PANKEN. 1977. ELEPHANT SEALS BREEDING ON THE MAINLAND IN CALIFORNIA. CALIF. ACAD. SCI., PROC., SER. 4, 41(9):267-280.

DISCUSSES THE FIRST RECORDED BIRTH ON THE MAINLAND THIS CENTURY. CONTAINS INFORMATION ON THE NUMBER OF SEALS ON ANO NUEVO ISLAND AND THE MAINLAND WITH REFERENCE TO THE SEX RATIOS OF PUPS AND REPRODUCTIVE DATA. (D,P,R)

339. LeBOEUF, B.J. AND R.S. PETERSON. 1968. BEHAVIOR OF THE NORTHERN ELEPHANT SEAL. UNIV. CALIF., SANTA CRUZ. ANO NUEVO REP. 2:6-20.

RESULTS OF STUDIES CONDUCTED ON ANO NUEVO ISLAND FROM DECEMBER 1967 THROUGH MARCH 1968 ARE PRESENTED. CONTAINS A CENSUS OF ELEPHANT SEALS FROM SEPTEMBER 1967 - SEPTEMBER 1968 NOTING THE NUMBER OF ADULT MALES, ADULT FEMALES, PUPS, JUVENILES, AND TOTAL COUNTS. INCLUDES GRAPHS SHOWING THE ANNUAL FLUCTUATIONS IN THE MIROUNGA POPULATION, THE NUMBERS ON LAND DURING THE BREEDING SEASON RECORDED BY SEX AND AGE, AND THE NUMBER OF PUPS BORN. (P,R)

340. LeBOEUF, B.J. AND R.S. PETERSON. 1969. SOCIAL STATUS AND MATING ACTIVITY IN ELEPHANT SEALS. SCIENCE, (NEW YORK), 163:91-93.

DURING TAGGING STUDIES ON ANO NUEVO ISLAND IN THE 1967-1968 BREEDING SEASON, 93 OF APPROXIMATELY 115 MALES, AND 46 OF 225 FEMALES WERE TAGGED. (P)

341. LeBOEUF, B.J., R.J. WHITING, AND R.F. GANTT. 1972. PERINATAL BEHAVIOR OF NORTHERN ELEPHANT SEAL FEMALES AND THEIR YOUNG. BEHAVIOR 43:121-156.

RESULTS PRESENTED ARE BASED ON 3,000 HOURS OF OBSERVATION ON ANO NUEVO ISLAND. DISCUSSES PUP MORTALITY WITH REFERENCE TO ITS INCIDENCE, TIME COURSE, AND POSSIBLE CAUSES. ALSO MENTIONS THE FEMALE REPRODUCTIVE CYCLE. (M,R)

342. MATE, B.R. 1969. NORTHERN EXTENSION OF RANGE OF SHORE OCCUPATION BY MIROUNGA ANGUSTIROSTRIS. J. MAMMAL. 50:639.

DISCUSSES SIGHTINGS AND NEW RANGE EXTENSION IN OREGON. (D)

343. MATE, B.R. 1977. AERIAL CENSUSING OF PINNIPEDS IN THE EASTERN PACIFIC FOR ASSESSMENT OF POPULATION NUMBERS, MIGRATORY DISTRIBUTIONS, ROOKERY STABILITY, BREEDING EFFORT, AND RECRUITMENT. MARINE MAMMAL COMMISSION REPORT MMC-75/01, NTIS PB-265 859. 67 P.

MIROUNGA

- RESULTS OF SURVEYS COVERING 21°-51° NORTH LATITUDE FROM AUGUST 1974-
AUGUST 1975 ARE REPRODUCED. HIGH COUNT FOR ELEPHANT SEALS IN JANUARY
1975 WAS UNEXPECTEDLY LOW. CONTAINS MAPS OF LOCATIONS OF BREEDING
AND HAULING OUT AREAS, GRAPHS WITH MAXIMUM COUNTS BY LATITUDE, AND
DETAILS OF FLIGHT OBSERVATIONS. (D,P)
4. MCGINNIS, S.M. AND R.J. SCHUSTERMAN. 1977. NORTHERN ELEPHANT SEAL
(*MIROUNGA ANGUSTIROSTRIS* (GILL, 1866)). IN (RIDGWAY, S.H. AND
R.J. HARRISON, EDS.), A HANDBOOK OF MARINE MAMMALS OF THE
WORLD. LONDON: ACADEMIC PRESS. (IN PRESS).
- DISCUSSES THE DISTRIBUTION, MIGRATION, ABUNDANCE, LIFE HISTORY,
POPULATION DYNAMICS, AND FEEDING BEHAVIOR OF *MIROUNGA*. INCLUDES A
TABLE WITH THE LOCATION OF BREEDING COLONIES, TIME OF COLONIZATION,
NUMBER OF BREEDING FEMALES AT PEAK SEASON, AND ESTIMATED TOTAL
ANIMALS. (D,M,P,R)
5. MOREJOHN, G.V. 1977. MARINE MAMMALS. PP. 1-74. IN (WINZLER AND
KELLY, CONSULTING ENGINEERS), A SUMMARY OF KNOWLEDGE OF
THE CENTRAL AND NORTHERN CALIFORNIA COASTAL ZONE AND OFFSHORE
AREAS. VOL. 2. BIOLOGICAL CONDITIONS. BOOK 2.
B.L.M. WASH., D.C. NTIS PB 274 213/8ST.
- PAGES 18-20 INCLUDE INFORMATION ON THE DISTRIBUTION, LIFE HISTORY,
BREEDING AREAS, MIGRATION, ECOLOGY, ECONOMIC IMPORTANCE, AND
ABUNDANCE OF NORTHERN ELEPHANT SEALS. ALSO INCLUDES A DISTRIBUTION
MAP. (D,P)
6. MOREJOHN, G.V. *MIROUNGA ANGUSTIROSTRIS*. MOSS LANDING MARINE LAB.,
MOSS LANDING, CALIF. (UNPUBL. PHOTOS AND NOTES).
- NOT SEEN.
7. MOREJOHN, G.V. AND D.M. BALTZ. 1970. CONTENTS OF THE STOMACH OF
AN ELEPHANT SEAL. J. MAMMAL. 51(1):173-174.
- PUBLISHED ACCOUNT OF A STRANDING OF A SUBADULT MALE ON DECEMBER 20,
1968 NEAR MOSS LANDING, CALIFORNIA. MENTIONS THAT THEY ARE DEEP
DIVING SELECTIVE FEEDERS. (D,F)
8. MOREJOHN, G.V. AND K.T. BRIGGS. 1973. POST-MORTEM STUDIES OF
NORTHERN ELEPHANT SEAL PUPS. J. ZOOL., LOND. 171:67-77.
- DISCUSSES PUP MORTALITY IN RELATION TO POPULATION SIZE AND SIZE OF
BREEDING GROUNDS. THIRTY OF THE THIRTY-FOUR PUPS EXAMINED WERE FROM
ANO NUEVO ISLAND. (M,P)

MIROUNGA

349. NISHIWAKI, M. 1972. GENERAL BIOLOGY. PP. 3-204. IN (RIDGWAY, S.H., ED.), MAMMALS OF THE SEA. BIOLOGY AND MEDICINE. SPRINGFIELD, IL: C.C. THOMAS.

PAGES 191-192 DISCUSS OVERALL DISTRIBUTION, ABUNDANCE, AND REPRODUCTION OF NORTHERN ELEPHANT SEALS.

(D,P)

350. ODELL, D.K. 1971. CENSUSES OF PINNIPEDS BREEDING ON THE CALIFORNIA ISLANDS. J. MAMMAL. 52(1):187-190.

CONTAINS AERIAL CENSUS DATA FOR NORTHERN ELEPHANT SEALS WITH AGE AND SEX DISTRIBUTIONS DURING FEBRUARY 1964.

(D,M,

351. ODELL, D.K. 1972. STUDIES ON THE BIOLOGY OF THE CALIFORNIA SEALION AND THE NORTHERN ELEPHANT SEAL ON SAN NICHOLAS ISLAND, CALIFORNIA. PH.D. THESIS, UNIV. CALIF., LOS ANGELES. DISS. ABSTR. INTERNATL. 33(7):3389-B.

RESULTS OF STUDIES CONDUCTED FROM AUGUST 1968 TO AUGUST 1971 ARE PRESENTED. INCLUDES YEARLY PEAKS OF NORTHERN ELEPHANT SEALS, NUMBER OF PUPS BORN EACH YEAR, AND PUP MORTALITY ON LAND. ANALYZES AERIAL SURVEY FOR 1964 (ODELL, 1971).

(M,P,

352. ODELL, D.K. 1974. SEASONAL OCCURRENCE OF THE NORTHERN ELEPHANT SEAL, *MIROUNGA ANGUSTIROSTRIS*, ON SAN NICHOLAS ISLAND, CALIFORNIA. J. MAMMAL. 55(1):81-95.

STUDIES WERE CONDUCTED FROM AUGUST 1968 THROUGH AUGUST 1971. INCLUDES AGE AND SEX DISTRIBUTIONS, THE NUMBER OF PUPS BORN, AND PUP MORTALITY ON LAND. GIVES AGE OF FIRST REPRODUCTION AND THE NUMBER OF PUPS PRODUCED BY A FEMALE IN HER LIFETIME.

(M,P,

353. ODELL, D.K., S. LEATHERWOOD, AND G.A. ANTONELIS. 1975. CENSUSES OF NORTHERN ELEPHANT SEALS, *MIROUNGA ANGUSTIROSTRIS*, ON CALIFORNIA AND BAJA CALIFORNIA ISLANDS. (UNPUBL. MANUSCR.).

CONTAINS 1972 BREEDING SEASON CENSUSES (INCLUDING PUPS) FOR SAN MIGUEL ISLAND, SAN NICHOLAS ISLAND, AND SANTA BARBARA ISLAND, AND NOTES THE PRESENCE OF A BREEDING COLONY ON THE FARALLON ISLANDS. NON-BREEDING SEASON CENSUS DATA FOR THE CALIFORNIA CHANNEL ISLANDS IS ALSO PRESENTED. PRELIMINARY ESTIMATES OF THE TOTAL SIZE OF THE *MIROUNGA* POPULATION RANGE FROM 24,000 TO 65,000 DEPENDING ON THE METHOD OF COMPUTATION.

(D,P,

354. ORR, R.T. AND T.C. POULTER. 1965. THE PINNIPED POPULATION OF ANO NUEVO ISLAND, CALIFORNIA. CALIFORNIA ACAD. SCI., PROC., SER. 4, 32(13):377-404.

MIROUNGA

RESULTS OF STUDIES CONDUCTED FROM MAY 1961 TO MAY 1964 ARE PRESENTED. (P,R)
INCLUDES THE POPULATION SIZE OF NORTHERN ELEPHANT SEALS NOTING THE
NUMBER OF PUPS BORN FROM 1961-1974.

5. PETERSON, R.S., R.L. GENTRY, AND B.J. LeBOEUF. 1968. INVESTIGATIONS
OF PINNIPEDS ON SAN MIGUEL AND SAN NICHOLAS ISLANDS, FEBRUARY-
MARCH, 1968. UNIV. CALIF., SANTA CRUZ. MANUSCR.

NOT SEEN. SUPPOSED TO INCLUDE SIGHTINGS OF NORTHERN ELEPHANT SEALS.

6. PETERSON, R.S. AND B.J. LeBOEUF. 1969. POPULATION STUDIES OF SEALS
AND SEA LIONS. TRANS. N. AM. WILDL. NAT. RESOUR. CONF. 34:74-79.

DISCUSSES OVERALL POPULATION SIZE OF NORTHERN ELEPHANT SEALS, (P,R)
INCLUDING THE NUMBER OF YOUNG. ALSO GIVES THE NUMBER OF PUPS BORN
ANNUALLY AT THE MAJOR BREEDING GROUNDS IN 1968 AND 1969.

7. PETERSON, R.S. AND B.J. LeBOEUF. 1969. REPORT OF AN EXPEDITION TO
SAN MIGUEL ISLAND, 25-28 MARCH, 1969. UNIV. CALIF., SANTA
CRUZ. 10 P. (UNPUBL. REP.).

A TOTAL OF 3015 MIROUNGA WERE COUNTED DURING A CENSUS MADE ON MARCH (P,R)
27, 1969. COUNTS INCLUDE NUMBER OF WEANED PUPS, NUMBER OF FEMALES,
AND NUMBER OF MALES.

8. RADFORD, K.W., R.T. ORR, AND C.L. HUBBS. 1965. RE-ESTABLISHMENT OF
THE NORTHERN ELEPHANT SEAL (MIROUNGA ANGUSTIROSTRIS) OFF
CENTRAL CALIFORNIA. CALIF. ACAD. SCI., PROC., SER. 4, 31:601-612.

CONTAINS HISTORICAL SIGHTING ACCOUNTS ALONG THE CALIFORNIA COAST. (D,M,P,R)
INCLUDES CENSUS DATA FOR ANO NUEVO ISLAND WITH SEX AND AGE DISTRIBUTIONS
FOR 1955-1961. ALSO HAS CENSUS DATA FOR THE FARALLON ISLANDS.

9. RAMSEY, D.H. AND T.A. BABB. 1968. PRELIMINARY REPORT OF AN EXPEDITION
TO SAN MIGUEL ISLAND, DECEMBER 1968. UNIV. CALIF., SANTA
CRUZ. 6 P. (UNPUBL. REP.).

STUDIES WERE CONDUCTED ON MIROUNGA DURING MID DECEMBER 1968. (P,R)
INCLUDES CENSUS OF THE MIROUNGA POPULATION ON POINT BENNETT WITH
REFERENCE TO THE NUMBER OF ADULT MALES, ADULT FEMALES, JUVENILES,
AND PUPS OBSERVED.

10. RETT, E.Z. 1952. THE NORTHERN ELEPHANT SEAL ON SAN MIGUEL ISLAND,
CALIFORNIA. J. MAMMAL 33(1):109.

ONE INDIVIDUAL SEEN IN AUGUST 1925 AND BETWEEN 50-57 ANIMALS SEEN (D,P)
IN JUNE 1950.

MIROUNGA

361. RICE, D.W. 1963. THE WHALE MARKING CRUISE OF THE SIOUX CITY OFF CALIFORNIA AND BAJA CALIFORNIA. NORSK. HVAL.-TID. 52(5):153-160.

CONTAINS SIGHTING RECORD OF NORTHERN ELEPHANT SEALS ON GUADALUPE ISLAND IN NOVEMBER 1962. ONE WAS OBSERVED AT SEA NEAR THE MEXICO-CALIFORNIA BORDER.

(D)

362. RICE, D.W., K.W. KENYON, AND D. LLUCH B. 1965. PINNIPED POPULATIONS AT ISLAS GUADALUPE, SAN BENITO, AND CEDROS, BAJA CALIFORNIA, IN 1965. SAN DIEGO SOC. NAT. HIST., TRANS. 14(7):73.84.

REPORTS THE RESULTS OF CENSUSES MADE BETWEEN JANUARY 28 AND FEBRUARY 3, 1965. FOR MIROUNGA, AN ADULT TO PUP RATIO OF 1:0.57 WAS FOUND ON ISLA GUADALUPE'S NORTH BARRACKS BEACH. INCLUDING HAULING OUT GROUNDS THIS RATIO SHIFTS TO 1:0.55. SUGGESTS THAT ISLA GUADALUPE'S POPULATION HAS STOPPED GROWING, POSSIBLY DUE TO AN INCREASED PUP MORTALITY FROM CRUSHING BY ADULTS ON THE CROWDED ROOKERIES. ISLA BENITO DEL OESTE'S OVERALL ADULT TO PUP RATIO IS 1:0.39. SUGGESTS THAT THE SAN BENITO POPULATION OF MIROUNGA IS INCREASING AND STATES THE WORLD POPULATION AS 14,072 ANIMALS. SUGGESTS THIS CENSUS MAY BE PARTICULARLY USEFUL FOR DETERMINING POPULATION CHANGE WHEN COMPARED TO THE CENSUS MADE BY BARTHOLOMEW AND HUBBS IN 1950 AT EXACTLY THE SAME TIME OF YEAR. (SEE BARTHOLOMEW AND HUBBS (1952) UNDER ZALOPHUS).

(D,M)

363. SCHEFFER, V.B. 1958. SEALS, SEA LIONS, AND WALRUSES. A REVIEW OF THE PINNIPEDIA. STANFORD, CA: STANFORD UNIV. PRESS. 179 P.

PAGES 133-134 DISCUSS OVERALL RANGE AND POPULATION SIZE OF THE NORTHERN ELEPHANT SEAL. INCLUDES DISTRIBUTION MAP ON PAGE 126.

(D,P)

364. SIMPSON, J.G. AND W.G. GILMARTIN. 1970. AN INVESTIGATION OF ELEPHANT SEAL AND SEA LION MORTALITY ON SAN MIGUEL ISLAND. BIOSCIENCE 20(5):289.

INCLUDES SIGHTINGS OF NORTHERN ELEPHANT SEALS MADE DURING A FOLLOW-UP STUDY ON THE EFFECTS OF THE SANTA BARBARA OIL SPILL.

(D)

365. U.S. DEPARTMENT OF COMMERCE. 1978. REPORT OF THE SECRETARY OF COMMERCE ON ADMINISTRATION OF THE MARINE MAMMAL PROTECTION ACT OF 1972. ANNUAL REPORT, APRIL 1, 1977 TO MARCH 31, 1978. PREPARED BY NOAA/NMFS. 183 P.

PAGES 95-97 DISCUSS OVERALL DISTRIBUTION, ABUNDANCE, AND REPRODUCTIVE DATA FOR THE NORTHERN ELEPHANT SEAL.

(D,P)

MIROUNGA

366. U.S. GEOLOGICAL SURVEY. 1976. MARINE MAMMALS. PP. 303-320. IN
FINAL ENVIRONMENTAL STATEMENT OIL AND GAS DEVELOPMENT IN THE
SANTA BARBARA CHANNEL OUTER CONTINENTAL SHELF OFF CALIFORNIA.
VOL. 2 OF 3. U.S. DEPT. INTER.

PAGE 305 STATES NORTHERN ELEPHANT SEAL POPULATION SIZE OFF THE
CALIFORNIA COAST. PAGE 318 CONTAINS A CHART SHOWING APPROXIMATE
TIMES OF ELEPHANT SEAL ACTIVITY ON THE SANTA BARBARA CHANNEL ISLANDS.

(D,P)

367. WOODHOUSE, C.D., P.W. COLLINS, AND F.G. HOCHBERG. 1977. MARINE
MAMMAL STRANDINGS IN THE SANTA BARBARA REGION FROM 1975 TO
1977. PP. 4-5. IN PRESENTATION ABSTR., MARINE MAMMAL STRANDING
WORKSHOP. ATHENS, GEORGIA, AUG. 10-12, 1977. (WILL BE PUBLISHED
BY NTIS).

MENTIONS THE AVERAGE ANNUAL NUMBER OF NORTHERN ELEPHANT SEAL
STRANDINGS.

(D)

PHOCA VITULINA - HARBOR SEAL

368. AINLEY, D.G., H.R. HUBER, R.P. HENDERSON, AND T.J. LEWIS. 1977. STUDIES OF MARINE MAMMALS AT THE FARALLON ISLANDS, CALIFORNIA, 1970-1975. MARINE MAMMAL COMMISSION REPORT MMC-74/04, NTIS PB 274 046. 42 P.

CENSUS DATA SHOWS THAT THE STATUS OF THE HARBOR SEAL HAS CHANGED FROM AN APPARENT WINTER VISITOR TO A YEAR-ROUND RESIDENT AND BREEDER. INCLUDES A GRAPH WITH CENSUS TOTALS. (D,P)

369. AINLEY, D.G., H.R. HUBER, R.P. HENDERSON, T.J. LEWIS, AND S.H. MORRELL. 1977. STUDIES OF MARINE MAMMALS AT THE FARALLON ISLANDS, CALIFORNIA, 1975-1976. MARINE MAMMAL COMMISSION REPORT MMC-75/02, NTIS PB 266 249. 32 P.

CONTAINS DATA ON THE NUMBER OF HARBOR SEAL PUPS BORN IN 1976. MENTIONS THAT OVERALL POPULATION SIZE HAS INCREASED. (D,P,R)

370. AINLEY, D.G., H.R. HUBER, S. MORRELL, AND R.H. LEVALLEY. 1978. STUDIES AT THE FARALLON ISLANDS, 1977. FINAL REP., MARINE MAMMAL COMM., CONTRACT NO. MM6ACO27, WASH., D.C.

NOT SEEN.

371. ALLEN, S. UNPUBLISHED HARBOR SEAL DATA. POINT REYES BIRD OBSERVATORY, STINSON BEACH, CALIF.

NOT SEEN. DATA AVAILABLE ON HARBOR SEALS IN NORTHERN CALIFORNIA.

372. BALDRIDGE, A. 1973. MONTEREY BAY MARINE MAMMAL OBSERVATIONS, 1972. PP. 30-33. IN STANFORD UNIV. HOPKINS MAR. STN., PAC. GROVE, CALIF., ANN. REP., 1972. CALCOFI HYDROGRAPHIC DATA.

INCLUDES AN INDIVIDUAL SIGHTING OF A HARBOR SEAL. (D)

373. BARTHOLOMEW, G.A. 1949. A CENSUS OF HARBOR SEALS IN SAN FRANCISCO BAY. J. MAMMAL. 30(1):34-35.

DISCUSSES SEASONAL VARIATION IN THE NUMBER OF HARBOR SEALS. GIVES POPULATION ESTIMATES FOR SPRING, SUMMER AND FALL OF 1964. (P)

374. BARTHOLOMEW, G.A. 1951. SPRING, SUMMER, AND FALL CENSUS OF PINNIPEDS ON SAN NICHOLAS ISLAND, CALIFORNIA. J. MAMMAL 32(1):15-21.

CONTAINS DATA FROM SIX CENSUSES FOR HARBOR SEALS FROM MAY 1949 TO APRIL 1950. (P)

PHOCA

375. BARTHOLOMEW, G.A. 1967. SEAL AND SEA LION POPULATIONS OF THE CALIFORNIA ISLANDS. PP. 229-244. IN (PHILBRICK, R.N., ED.), PROC. SYMP. ON THE BIOLOGY OF THE CALIFORNIA ISLANDS. SANTA BARBARA BOTANIC GARDEN.

CONTAINS POPULATION ESTIMATE FOR HARBOR SEALS BASED ON THE APPRAISAL OF PAST DATA.

(P)

376. BARTHOLOMEW, G.A. AND R.A. BOOTLOOTIAN. 1960. NUMBERS AND POPULATION STRUCTURE OF THE PINNIPEDS ON THE CALIFORNIA CHANNEL ISLANDS. J. MAMMAL. 41(3):366-375.

DISCUSSES DISTRIBUTION OF HARBOR SEALS. CONTAINS CENSUS DATA BY ISLAND WITH AGE AND SEX COMPOSITIONS FOR 1958-1959.

(D,M,P)

377. BIGG, M.A. 1966. AGE DETERMINATION, REPRODUCTION, GROWTH AND POPULATION ANALYSIS OF THE HARBOUR SEAL, PHOCA VITULINA RICHARDI GRAY IN BRITISH COLUMBIA. MANUSCR.

NOT SEEN.

378. BIGG, M.A. 1969. CLINES IN THE PUPPING SEASON OF THE HARBOUR SEAL, PHOCA VITULINA. J. FISH, RES. BD. CAN. 26(2):449-455.

DISCUSSES DISTRIBUTION DURING PUPPING SEASON ALONG THE CALIFORNIA COAST.

(D)

379. BIGG, M.A. 1969. THE HARBOR SEAL IN BRITISH COLUMBIA. FISH. RES. BD. CAN., BULL. 172, 33 P.

CONTAINS DATA ON POPULATION SIZE AND STRUCTURE, AGE OF SEXUAL MATURITY, PREGNANCY RATES, SEX RATIOS, AND NATURAL MORTALITY RATES. INCLUDES LIFE TABLES FOR MALES AND FEMALES.

(M,R)

380. BIGG, M.A. 1972. CONTROL OF ANNUAL REPRODUCTION IN THE FEMALE HARBOR SEAL, PHOCA VITULINA. PH.D. THESIS, UNIV. B.C. DISS. ABSTR. INTERNATL. 33(7):3036-B.

STUDIES CONDUCTED IN SOUTHEASTERN AND NORTHEASTERN VANCOUVER ISLAND AND NORTHERN CALIFORNIA SHOW REGIONAL VARIATIONS IN PREGNANCY AND NON-PREGNANCY CYCLES.

(R)

381. BIGG, M.A. 1973. ADAPTATIONS IN THE BREEDING OF THE HARBOUR SEAL, PHOCA VITULINA. J. REPROD. FERT., SUPPL. 19(1973): 131-142.

DISCUSSES OVULATION IN SEALS FROM BRITISH COLUMBIA AND CALIFORNIA AND POSSIBLE REPRODUCTIVE RATES.

(R)

PHOCA

- . BIGG, M.A. AND H.D. FISHER. 1974. THE REPRODUCTIVE CYCLE OF THE FEMALE HARBOR SEAL OFF SOUTHEASTERN VANCOUVER ISLAND. PP. 329-347. IN (HARRISON, R.J., ED.), FUNCTIONAL ANATOMY OF MARINE MAMMALS. VOL. 2. LONDON: ACADEMIC PRESS. 366 P.

CONTAINS A DETAILED DISCUSSION OF PREGNANCY AND NON-PREGNANCY CYCLES BASED ON THE EXAMINATION OF 135 REPRODUCTIVE TRACTS. (R)

- . BIGG, M.A. AND H.D. FISHER. 1975. EFFECT OF PHOTOPERIOD ON ANNUAL REPRODUCTION IN FEMALE HARBOUR SEALS. PP. 141-144. IN (RONALD, K. AND A.W. MANSFIELD, EDS.), BIOLOGY OF THE SEAL. INT. COUNC. EXPLOR. SEA, (I.C.E.S.), RAPP. & P.-V. REUN., 169.

STUDIES WERE CONDUCTED TO DETERMINE THE EFFECT OF DAYLENGTH ON THE SEASONAL TIMING OF ESTRUS IN INDIVIDUALS FROM VANCOUVER ISLAND, BRITISH COLUMBIA AND HUMBOLDT BAY, CALIFORNIA. (R)

- . BISHOP, R.H. 1968. REPRODUCTION, AGE DETERMINATION, AND BEHAVIOR OF THE HARBOR SEAL, PHOCA VITULINA L., IN THE GULF OF ALASKA. M.SC. THESIS, UNIV. ALASKA. 121 P.

NOT SEEN. SUPPOSED TO CONTAIN INFORMATION ON REPRODUCTION, GROWTH, AND AGE DETERMINATION.

- . BONNER, W.N. 1976. SPECIES DESCRIPTION HARBOR SEAL, PHOCA VITULINA. F.A.O., PINNIPED SPECIES SUMMARIES, 177 P.

PAGES 78-84 CONTAIN DATA ON OVERALL RANGE AND POPULATION SIZE, PREGNANCY RATES, NATURAL MORTALITY RATES, TROPHIC RELATIONSHIPS, AND RELATIONS TO MAN. (D,M,P,R)

- . BONNOT, P. 1928. REPORT ON THE SEALS AND SEA LIONS OF CALIFORNIA. CALIF. DEPT. FISH & GAME, FISH. BULL. 14, 62 P.

INCLUDES RANGE, SIGHTINGS, AND A POPULATION CENSUS FOR HARBOR SEALS FOR 1927-1928. (D,P)

- . BONNOT, P. 1951. SEA LIONS, SEALS, AND SEA OTTER OF THE CALIFORNIA COAST. CALIF. FISH & GAME 37(4):371-389.

BRIEFLY MENTIONS DISTRIBUTION AND ABUNDANCE OF HARBOR SEALS. NOTES RELATIONS TO COMMERCIAL FISHERMEN. (D,F,P)

- . BOULVA, J. 1971. OBSERVATIONS ON A COLONY OF WHELPING HARBOUR SEALS, PHOCA VITULINA CONCOLOR, ON SABLE ISLAND, NOVA

PHOCA

SCOTIA. J. FISH. RES. BD. CAN. 28(5):755-759.

CONTAINS DATA ON THE NUMBER OF PUPS BORN IN 1970, SEX RATIOS, AND PUP MORTALITY RATES.

(M,R)

389. BOULVA, J. 1975. TEMPORAL VARIATIONS IN BIRTH PERIOD AND CHARACTERISTICS OF NEWBORN HARBOUR SEALS. PP. 405-408. IN (RONALD, K. AND A.W. MANSFIELD, EDS.), BIOLOGY OF THE SEAL. INT. COUNC. EXPLOR. SEA, (I.C.E.S.), RAPP. & P.-V. REUN., 169.

CONTAINS DATA ON THE NUMBER OF PUPS BORN IN 1970, 1971, 1972 ON SABLE ISLAND, NOVA SCOTIA AND DISCUSSES MORTALITY RATES.

(M,R)

390. BREEN, B. UNPUBLISHED PHOCA DATA. PARK NATURALIST, JAMES V. FITZGERALD MARINE RESERVE, MOSS BEACH, CALIF.

MR. BREEN HAS OBSERVATIONS ON A HARBOR SEAL COLONY THAT IS IS WITHIN THE RESERVE. A NOVEMBER 1977 CENSUS SHOWED 103 SEALS, THE MOST EVER COUNTED. MR. BREEN HAS RECEIVED COMPLAINTS FROM ROCKFISH FISHERMEN ABOUT HARBOR SEAL INTERFERENCE.

(D,F)

391. BROWN, D. UNPUBLISHED PHOCA DATA. PT. REYES, NATL. SEA-SHORE, PT. REYES, CALIF.

DURING INTERMITTENT SEA LION CENSUSES AT PT. REYES IN 1968-1969 INCIDENTAL SIGHTINGS OF HARBOR SEALS WERE ALSO RECORDED. A MAP IS AVAILABLE SHOWING HARBOR SEAL HAULING OUT AND BREEDING AREAS WITHIN THE PARK. MISCELLANEOUS NOTES ON MARINE MAMMALS CONTAIN A HARBOR SEAL CENSUS AT DOUBLE POINT, PT. REYES FROM JANUARY - OCTOBER 1976. CENSUS DATA INCLUDES TIME OF OBSERVATION, TIDE LEVEL, TOTAL NUMBER OF SEALS, TOTAL NUMBER OF PUPS, AND NOTES IF THERE WERE ANY INCIDENTS OF HUMAN DISTURBANCE DURING PERIODS OF OBSERVATIONS.

(D,P)

392. BUREAU OF LAND MANAGEMENT. 1975. MARINE MAMMALS. PP. 407-445. IN FINAL ENVIRONMENTAL STATEMENT PROPOSED 1975 OUTER CONTINENTAL SHELF OIL AND GAS GENERAL LEASE SALE OFFSHORE SOUTHERN CALIFORNIA. VOL. 1 of 5. U.S. DEPT. INTER.

PAGES 438-445 INCLUDE INFORMATION ON RANGE, POPULATION SIZE, LIFE HISTORY, AND DISEASES OF HARBOR SEALS. INCLUDES MAPS OF BREEDING AND HAULING OUT GROUNDS.

(D,P)

393. BUREAU OF MARINE FISHERIES. 1947. CALIFORNIA SEA LION CENSUS FOR 1946. CALIF. FISH & GAME 33(1):19-22.

PHOCA

CONTAINS CENSUS DATA FOR HARBOR SEALS BASED ON GROUND AND
AERIAL SURVEYS.

(D,P)

394. BURNS, J.J. AND F.H. FAY. 1972. COMPARATIVE BIOLOGY OF
BERING SEA HARBOR SEAL POPULATIONS (ABSTRACT). PRO-
CEEDINGS 23rd ALASKAN SCIENCE CONFERENCE. FAIRBANKS,
AK. AUG. 1972.

BRIEFLY DISCUSSES THE COMPARISON OF BREEDING, AGE OF
SEXUAL MATURITY, GESTATION, AND LONGEVITY, BETWEEN PHOCA
VITULINA V. AND PHOCA VITULINA R.

(R)

395. CARLISLE, J.G. AND J.A. APLIN. 1966. SEA LION CENSUS FOR
1965, INCLUDING COUNTS OF OTHER CALIFORNIA PINNIPEDS.
CALIF. FISH & GAME 52(2):119-120.

HARBOR SEAL COUNTS INCLUDED IN AERIAL SURVEY OF CALIFORNIA
COAST AND OFFSHORE ISLANDS.

(P)

396. CARLISLE, J.G. AND J.A. APLIN. 1971. SEA LION CENSUS FOR
1970, INCLUDING COUNTS OF OTHER CALIFORNIA PINNIPEDS
CALIF. FISH & GAME 57(3):124-126.

HARBOR SEAL COUNTS INCLUDED IN AERIAL SURVEY OF CALIFORNIA
COAST AND OFFSHORE ISLANDS. COMPARES POPULATION SIZES FOR
1965, 1969, AND 1970.

(P)

397. CHAPMAN, D.R. 1973. PHOCA VITULINA RICHARDII IN BOLINAS
LAGOON. MANUSCR. 43 P.

NOT SEEN. ON FILE AT THE MARINE MAMMAL DIVISION LIBRARY
IN SEATTLE.

398. COX, W.G. 1974. THE HARBOR SEAL IN MORRO BAY. SENIOR
PROJECT, CALIF. POLYTECHNIC STATE UNIV., SAN LUIS
OBISPO. (UNPUBL. MANUSCR.).

NOT SEEN. CONSULT UNIVERSITY LIBRARY.

399. DIETZ, D.N. 1964. A PRELIMINARY STUDY OF THE NUMBER OF
SEALS AND THEIR COLOR PATTERNS AT SHELL BEACH. SPECIAL
GRADUATE REP., CALIF. POLYTECHNIC STATE UNIV., SAN LUIS
OBISPO.

NOT SEEN. ON FILE WITH DR. A. ROEST AT THE UNIVERSITY.

PHOCA

400. DOW, R. 1978. UNPUBLISHED PHOCA DATA. DEPT. OF THE NAVY, PACIFIC MISSILE TEST CENTER, PT. MUGU, CALIF.

MENTIONS THAT A RESIDENT POPULATION OF HARBOR SEALS RESIDE IN MUGU LAGOON. ALSO HAS LIMITED HISTORICAL INFORMATION CONCERNING THIS SMALL HERD IN THE FORM OF THE FOLLOWING TWO SMALL PUBLICATIONS: THE NATURAL RESOURCES OF MUGU LAGOON AND TABULATA. AS MANY AS 140 SEALS WERE RECORDED IN THE LAGOON IN 1962-64, BUT MORE RECENTLY THEIR NUMBERS HAVE DECLINED, AND AS OF THE END OF APRIL 1978, ONLY ABOUT 50 ANIMALS, INCLUDING 6 SUCKLING PUPS WERE COUNTED.

(D,P)

401. DOYLE, S.R. 1977. POPULATION ESTIMATE OF THE HARBOR SEAL IN SAN LUIS OBISPO COUNTY, 1976-1977. SENIOR PROJECT, CALIF. POLYTECHNIC STATE UNIV., SAN LUIS OBISPO. (UNPUBL. MANUSCR.).

NOT SEEN. CONSULT UNIVERSITY LIBRARY.

402. FANCHER, L.E. 1977. POPULATION DYNAMICS AND BEHAVIOR OF THE HARBOR SEAL, PHOCA VITULINA RICHARDII, IN SOUTH SAN FRANCISCO BAY. M. SC. THESIS, CALIF. STATE UNIV., HAYWARD.

NOT SEEN.

403. FEDOSEEV, G.A. 1976. PRINCIPLE POPULATION INDICATORS OF DYNAMICS OF NUMBERS OF SEALS OF THE FAMILY PHOCIDAE. SOVIET J. ECOL. 7(5):439-446.

CONTAINS INFORMATION ON AGE COMPOSITION, MORTALITY RATES, AGE OF SEXUAL MATURITY, AND RECRUITMENT RATES PERTINENT TO HARBOR SEALS.

(M,R)

404. FISHER, H.D. 1952. THE STATUS OF THE HARBOR SEAL IN BRITISH COLUMBIA, WITH PARTICULAR REFERENCE TO THE SKEENA RIVER. FISH RES. BD. CAN., BULL. 93, 58 P.

DISCUSSES LIFE HISTORY WITH REFERENCE TO MATING, BIRTH AND INFANCY, GROWTH OF YOUNG, DISEASE, AND FOOD HABITS.

(M,R)

405. FREY, H.W. AND J.A. APLIN. 1970. SEA LION CENSUS FOR 1969, INCLUDING COUNTS OF OTHER CALIFORNIA PINNIPEDS. CALIF. FISH & GAME 56(2):130-133.

AERIAL SURVEY OF CALIFORNIA COAST AND OFFSHORE ISLANDS INDICATES AN INCREASE IN HARBOR SEAL POPULATION SINCE 1965 SURVEY. CONTAINS A CHART SHOWING DISTRIBUTION BY GEOGRAPHIC AREA.

(D,P)

PHOCA

406. GENTRY, R.L. 1968. NOTES ON THE HARBOR SEAL (PHOCA VITULINA) POPULATION AT ANO NUEVO ISLAND. UNIV. CALIF., SANTA CRUZ. ANO NUEVO REP. 2:26-29.

CONTAINS HARBOR SEAL CENSUS FOR ANO NUEVO ISLAND DURING 1967-1968. CENSUS DATA INCLUDES NUMBER OF ADULTS AND PUPS OBSERVED. MENTIONS THAT THE ENTIRE POPULATION CONSISTS OF ABOUT 80 ANIMALS AND THAT FEWER THAN A DOZEN PUPS WERE BORN DURING 1968.

(D,P,R)

407. GOLTSEV, V.N. AND G.A. FEDOSEEV. 1970. (DYNAMICS OF THE AGE COMPOSITION OF ROOKERIES AND THE REPLACEMENT CAPACITY OF HARBOUR SEAL POPULATIONS.) FISH. RES. BD. CAN., TRANSL. SER. 2401, 1974.

NOT SEEN. SUPPOSED TO INCLUDE INFORMATION ON POPULATION DYNAMICS AND REPRODUCTION.

408. HARRISON, R.J. 1960. REPRODUCTION AND REPRODUCTIVE ORGANS IN COMMON SEALS (PHOCA VITULINA) IN THE WASH, EAST ANGLIA. MAMMALIA 24:372-385.

CONTAINS INFORMATION ON REPRODUCTIVE BEHAVIOR AND THE AGE OF SEXUAL MATURITY.

(R)

409. JACKSON, R.A. 1972. A SEA MAMMAL TOUR. AUG. 20, 1972, SAN FRANCISCO SUNDAY EXAMINER & CHRONICLE (CALIF. LIVING MAG.).

PAGES 16-25 CONTAIN A BRIEF ACCOUNT OF WHEN AND WHERE TO OBSERVE MARINE MAMMALS ALONG THE NORTHERN CALIFORNIA COAST. INCLUDES THE HARBOR SEAL. ALSO INCLUDES A MAP.

(D)

410. JENSEN, P.T. AND P.G. SWARTZELL. 1967. THE CALIFORNIA MARINE FISH CATCH FOR 1965 AND CALIFORNIA SALMON LANDINGS 1950-1965. CALIF. FISH & GAME, FISH. BULL. 135, 57 P.

INCLUDES CATCH INFORMATION BY AREA FOR HERRING, HAKE, WHITE SEA BASS, CALIFORNIA HALIBUT, AND VARIOUS SHARKS. MAY BE IMPORTANT SINCE THERE IS A POSSIBLE CONFLICT BETWEEN HARBOR SEALS AND THE ABOVE FISHERIES.

(F)

411. JOHNSON, B.W. 1976. STUDIES ON THE NORTHERN MOST COLONIES OF PACIFIC HARBOR SEALS, PHOCA VITULINA RICHARDII, IN THE EASTERN BERING SEA. ALASKA DEPT. FISH AND GAME. UNPUBL. REPORT. 67 P.

NOT SEEN.

PHOCA

412. KENYON, K.W. AND V.B. SCHEFFER. 1953. THE SEALS, SEA LIONS, AND SEA OTTER OF THE PACIFIC COAST. U.S. FISH WILDL. SERV., WILDL. LEAFL. 344, 28 P.

BRIEFLY DISCUSSES THE OVERALL RANGE, BREEDING HABITS, AND FEEDING HABITS OF HARBOR SEALS. MENTIONS POSSIBLE FISHERY INTERACTIONS.

(D,F)

413. KING, J.E. 1964. SEALS OF THE WORLD. LONDON: BRITISH MUSEUM OF NATURAL HISTORY. 154 P.

PAGES 51-56 DISCUSS THE OVERALL DISTRIBUTION AND GENERAL BIOLOGY OF HARBOR SEALS. INCLUDES A DISTRIBUTION MAP.

(D)

414. KNUDTSON, P.M. 1974. BIRTH OF A HARBOR SEAL. NAT. HIST. 83(5):30-37.

DISCUSSES RANGE AND REPRODUCTIVE BEHAVIOR. CONTAINS DATA ABOUT THE BREEDING COLONY IN HUMBOLDT BAY, CALIFORNIA SUCH AS SIZE OF THE COLONY AND THE NUMBER OF PUPS BORN IN 1973.

(D,P,R)

415. KNUDTSON, P.M. 1974. MOTHER-PUP BEHAVIOR WITHIN A PUPPING COLONY OF HARBOR SEALS (*PHOCA VITULINA RICHARDII*) IN HUMBOLDT BAY, CALIFORNIA. M.SC. THESIS, CAL. STATE UNIV., HUMBOLDT, CALIF.

NOT SEEN.

416. KNUDTSON, P.M. 1977. OBSERVATIONS ON THE BREEDING BEHAVIOR OF THE HARBOR SEAL, IN HUMBOLDT BAY, CALIFORNIA. CALIF. FISH & GAME 63(1):66-70.

CONTAINS THE RESULTS OF A 300 HOUR STUDY OF A PUPPING COLONY DURING THE SPRING OF 1973. MENTIONS THAT ON APRIL 26th THE NUMBER OF PUPS HAD PEAKED AT 88 AND THERE WERE 337 SEALS IN THE BAY. ALSO DISCUSSES PARTURITION, THE MOTHER-PUP BOND, PUP ONTOGENY, AND COPULATION.

(P,R)

417. LOUGHLIN, T.R. 1974. THE DISTRIBUTION AND ECOLOGY OF THE HARBOR SEAL IN HUMBOLDT BAY, CALIFORNIA. M.A. THESIS, CALIF. STATE UNIV., HUMBOLDT, CALIF. 71 P.

RESULTS OF STUDIES COVERING THE ENTIRE YEAR 1973 IN THE AREA OF AND ADJACENT TO HUMBOLDT BAY ARE PRESENTED. INCLUDES INFORMATION ON DISTRIBUTION, ABUNDANCE, PUPPING DATES AND PUPPING AREAS, AND OTHER FACTORS INFLUENCING THE NUMBER OF HARBOR SEALS IN HUMBOLDT BAY. ALSO INCLUDES A BRIEF DISCUSSION ON THE OVERALL DISTRIBUTION AND GENERAL BIOLOGY OF

(D,F,P,R)

PHOCA

HARBOR SEALS. APPENDIX I CONTAINS A LIST OF FISH OCCURRING IN HUMBOLDT BAY AND NOTES WHICH SPECIES ARE KNOWN CONSTITUENTS OF THE HARBOR SEAL DIET.

418. LOUGHLIN, T.R. 1978. HARBOR SEALS IN AND ADJACENT TO HUMBOLDT BAY, CALIFORNIA. CALIF. FISH. & GAME 64(2):127-132.

CONTAINS CENSUS DATA FOR EACH MAJOR HAUL-OUT LOCATION BY MONTH FOR 1973. THE NUMBER OF HARBOR SEALS IN THIS AREA SEEMS TO BE INCREASING DUE TO AN INCREASE IN THE USAGE OF HUMBOLDT BAY AS A PUPPING GROUNDS. INCLUDES FREQUENCY OF ADULTS AND CALVES.

(P,R)

419. LOUGHLIN, T.R. ANNUAL OCCURRENCE OF HARBOR SEALS IN NORTHERN CALIFORNIA. DEPT. BIO., UNIV. OF CALIF., LOS ANGELES. 14 P.

THIS PAPER SUMMARIZES A HARBOR SEAL CENSUS CONDUCTED ALONG A 61.7 (KM) SECTION OF NORTHERN CALIFORNIA DURING 1973. NOTES THAT THE TOTAL NUMBER OF SEALS WITHIN THE STUDY AREA VARIES ANNUALLY. CONTAINS A TABLE SHOWING THE AVERAGE NUMBER OF SEALS SEEN EACH MONTH. THE NUMBERS INCREASED FROM AN AVERAGE OF 62 IN JANUARY TO A HIGH OF 593 IN JULY, THEN STEADILY DECREASED AGAIN TO 85 IN DECEMBER. THE NUMBER OF HARBOR SEALS IN THE HUMBOLDT BAY REGION APPEARS TO BE INCREASING. THIS STUDY RECORDS A MAXIMUM OF 311 ADULTS PLUS 83 PUPS IN MAY 1973, (THIS IS NOT THE MAXIMUM COUNT FOR THE STUDY PERIOD).

(D,P,R)

420. MANSFIELD, A.W. 1961. HARBOUR SEAL. NO. 8 IN FISH. RES. BD. CAN., ARCT. UNIT, ANNU. REP., INVEST. SUMM., (1960-1961). (RESTRICTED)

NOT SEEN. SUPPOSED TO INCLUDE INFORMATION ON POPULATION DYNAMICS.

421. MANSFIELD, A.W. AND D.E. SERGEANT. 1960. HARBOUR SEAL POPULATION STUDIES. NO. 9. IN FISH. RES. BD. CAN., ARCT. UNIT, ANNU. REP. INVEST. SUMM., (1959-1960). (RESTRICTED)

NOT SEEN. SUPPOSED TO INCLUDE INFORMATION ON POPULATION DYNAMICS.

422. MARINE MAMMAL DIVISION STAFF. 1977. IMPACT OF MARINE MAMMALS ON SALMON STOCKS. U.S. DEPT. COMMER., NOAA (NMFS), NORTHWEST AND ALASKA FISHERIES CENTER, SEATTLE, WA. 23 P.

BRIEFLY DISCUSSES SALMON PREDATION BY HARBOR SEALS ALONG THE WESTERN COAST OF NORTH AMERICA.

(F)

PHOCA

423. MATE, B.R. 1977. AERIAL CENSUSING OF PINNIPEDS IN THE EASTERN PACIFIC FOR ASSESSMENT OF POPULATION NUMBERS, MIGRATORY DISTRIBUTIONS, ROOKERY STABILITY, BREEDING EFFORT, AND RECRUITMENT. MARINE MAMMAL COMMISSION REPORT MMC-75/01, NTIS PB-265 859. 67 P.

RESULTS OF SURVEYS COVERING 21°-51° NORTH LATITUDE FROM AUGUST 1974 TO AUGUST 1975 ARE REPORTED. THE COUNT FOR HARBOR SEALS WAS 2-3 TIMES THE PREVIOUS ESTIMATES WITHIN THE STUDY AREA. INCLUDES MAPS OF LOCATIONS OF ROOKERIES AND HAULING OUT AREAS, MAXIMUM COUNTS BY LATITUDE, AND DETAILS OF FLIGHT OBSERVATIONS.

(D,E,P)

424. McALLISTER, R. 1976. CALIFORNIA MARINE FISH LANDINGS FOR 1974. CALIF. FISH & GAME, FISH BULL. 166, 53 P.

INCLUDES CATCH INFORMATION BY AREA AND MONTH FOR HERRING, HAKE, WHITE SEA BASS, CALIFORNIA HALIBUT AND VARIOUS SHARKS. MAY BE IMPORTANT SINCE THERE IS A POSSIBLE CONFLICT BETWEEN HARBOR SEALS AND THE ABOVE FISHERIES.

(F)

425. MOREJOHN, G.V. 1977. MARINE MAMMALS. PP. 1-74. IN (WINZLER AND KELLY, CONSULTING ENGINEERS), A SUMMARY OF KNOWLEDGE OF THE CENTRAL AND NORTHERN CALIFORNIA COASTAL ZONE AND OFFSHORE AREAS. VOL. 2. BIOLOGICAL CONDITIONS. BOOK 2. B.L.M. WASH., D.C. NTIS PB 274 213/8ST.

PAGES 5-8 CONTAIN INFORMATION ON THE DISTRIBUTION, LIFE HISTORY, ECOLOGY, ECONOMIC IMPORTANCE, AND ABUNDANCE OF HARBOR SEALS. ALSO INCLUDES A DISTRIBUTION MAP.

(D,P)

426. MOREJOHN, G.V., J.T. HARVEY, R.C. HELM, AND J.L. CROSS. 1977. FEEDING HABITS OF HARBOR SEALS, PHOCA VITULINA, IN ELKHORN SLOUGH, MONTEREY BAY, CALIFORNIA. FISH. BULL. (IN PRESS).

CONTAINS SIGHTING RECORDS OF HARBOR SEALS DURING TIDAL RHYTHMS. DISCUSSES FEEDING HABITS BASED ON FISH OTOLITHS FOUND IN SCATS FROM HAULING OUT GROUNDS.

(D,F)

427. NAITO, Y. 1976. HARBOR SEAL IN THE NORTH PACIFIC. ADVISORY COMM. ON MAR. RESOUR. RES. U.N., F.A.O., ACNRR/MM/SC/44. 13 P. BERGEN, NORWAY, 31 AUG. - 9 SEPT. 1976.

DISCUSSES TAXONOMY, DISTRIBUTION AND MOVEMENTS, PUPPING AND WEANING SEASONS, TIME OF SEXUAL MATURITY, GROWTH, LONGEVITY,

(D,P,R)

PHOCA

AND POPULATION SIZE. INCLUDES PHOCA VITULINA R. FOUND ALONG THE WESTERN COAST OF NORTH AMERICA.

28. NAZARENKO, Y.I. 1975. SEXUAL MATURATION, REPRODUCTIVE RATE, AND MISSED PREGNANCY IN FEMALE HARP SEALS. PP. 413-415. IN (RONALD, K. AND A.W. MANSFIELD, EDS.), BIOLOGY OF THE SEAL. INT. COUNC. EXPLOR. SEA, (I.C.E.S.), EAPP. & P.-V. REUN., 1969.

CONTAINS REPRODUCTIVE DATA THAT MAY BE PERTINENT TO THE HARBOR SEAL.

(R)

29. NEWBY, T.C. 1971. DISTRIBUTION, POPULATION DYNAMICS AND ECOLOGY OF THE HARBOR SEAL, PHOCA VITULINA RICHARDII, OF THE SOUTHERN PUGET SOUND, WASHINGTON. M.SC. THESIS, UNIV. OF PUGET SOUND, WA. 75 P.

RESULTS OF STUDIES CONDUCTED THROUGHOUT A 1-½ YEAR PERIOD BEGINNING IN 1969 AND CONSISTING OF MORE THAN 1000 HOURS OF OBSERVATION TIME ARE PRESENTED. POPULATION COUNTS AND FACTORS AFFECTING THE COLONY SUCH AS BIRTH DEFECTS, PUP MORTALITY, RECRUITMENT RATES, AND FEEDING HABITS WERE STUDIED.

(D,F,M,P,R)

30. NEWBY, T.C. 1973. OBSERVATIONS ON THE BREEDING BEHAVIOR OF THE HARBOR SEAL IN THE STATE OF WASHINGTON. J. MAMMAL. 54(2):540-543.

INCLUDES DATA BASED ON 1000 HOURS OF FIELD OBSERVATIONS. DISCUSSES OVERALL RANGE, PUPPING SEASONS, PRENATAL AND NEONATAL DEATHS.

(D,M,R)

31. NISHIWAKI, M. 1972. GENERAL BIOLOGY. PP. 3-204. IN (RIDGWAY, S.H., ED.), MAMMALS OF THE SEA. BIOLOGY AND MEDICINE. SPRINGFIELD, IL: C.C. THOMAS.

PAGES 171-173 DISCUSS OVERALL DISTRIBUTION, ABUNDANCE, AND REPRODUCTION OF HARBOR SEALS.

(D,P)

32. ODELL, D.K. 1971. CENSUSES OF PINNIPEDS BREEDING ON THE CALIFORNIA CHANNEL ISLANDS. J. MAMMAL. 52(1):187-190.

CONTAINS AERIAL CENSUS OF HARBOR SEALS DURING JUNE 1964.

(F)

33. ODEMAR, M. 1978. MARINE MAMMALS/FISHERIES INTERACTIONS. CALIF. DEPT. FISH & GAME, SACRAMENTO, CALIF. (UNPUBL. MEMOS).

PHOCA

- DESCRIBES CONFLICTS BETWEEN HARBOR SEALS AND HERRING FISHERMEN AND GILL AND TRAMMEL NETTERS FOR WHITE SEA BASS, CALIFORNIA HALIBUT, AND VARIOUS SHARKS. (F)
434. ORR, R.T. AND T.C. POULTER. 1965. THE PINNIPED POPULATION OF ANO NUEVO ISLAND, CALIFORNIA. CALIF. ACAD. SCI., PROC., SER. 4, 32(13):377-404.
- CONTAINS A STUDY OF THE POPULATION SIZE OF HARBOR SEALS BETWEEN MAY 1961 AND MAY 1964. (P)
435. PAULBITSKI, P.A. 1974. PINNIPEDS OBSERVED IN RIVERS OF NORTHERN CALIFORNIA. CALIF. FISH & GAME. 60(1):48-49.
- DISCUSSES FRESH WATER SIGHTINGS OF HARBOR SEALS. (D)
436. PAULBITSKI, P.A. 1975. THE SEALS OF THE STRAWBERRY PIT. PAC. DISC. 28(4):12-15.
- DISCUSSES RANGE AND SIGHTINGS OF HARBOR SEALS IN THE SAN FRANCISCO BAY AREA. MENTIONS POPULATION SIZE IN CALIFORNIA. (D,P)
437. PAULBITSKI, P. UNPUBLISHED PHOCA DATA. 314 PACHELO ST., SAN FRANCISCO, CA.
- HAS APPROXIMATELY EIGHT YEARS OF DATA ON HARBOR SEALS IN SAN FRANCISCO BAY. INCLUDES CENSUS DATA, SIGHTING DATA, AND TAGGING DATA. HAS INFORMATION ON THE POPULATION SIZE OF SEALS IN S.F. BAY DURING HERRING RUNS AND HAS ALSO COLLECTED SCATS FROM HAULING OUT GROUNDS DURING HERRING RUNS. HAS PHOTOGRAPHS AND NOTES DESCRIBING THE CONFLICT BETWEEN HARBOR SEALS AND BOATERS IN THE BAY. NOTES THAT THERE IS A MAJOR PROBLEM WITH HARBOR SEALS BEING INJURED BY BOAT PROPELLERS. (D,F,P)
438. PAULBITSKI, P.A. AND T.D. MAGUIRE. 1972. TAGGING HARBOR SEALS IN THE SAN FRANCISCO BAY (CALIFORNIA, U.S.A.). PP. 53-72. IN SYMP: BIOLOGICAL SONAR AND DIVING MAMMALS, PROC. 9TH ANNU. CONF. BIOL. SONAR DIVING MAMM., 1972. STANFORD RESEARCH INST., MENLO PARK, CALIF., BIOL. SONAR LAB., FREEMONT, CALIF.
- DISCUSSES SIGHTINGS AND POPULATION SIZE BETWEEN 1970 AND 1972. MENTIONS SIGHTINGS IN FRESH WATER HABITAT. (P)

PHOCA

439. PETERSON, R.S. 1968. OBSERVATIONS OF SEA LIONS ON PIEDRAS BLANCAS, 1968. UNIV. CALIF., SANTA CRUZ. 3 P. (UNPUBL. REP.).

DURING CENSUSES OF SEA LIONS ON SEVERAL ROCKS OFF THE COAST OF NORTHERN SAN LUIS OBISPO COUNTY IN JUNE AND JULY 1968, SEVEN HARBOR SEALS WERE OBSERVED. (D)

440. PIKE, G.C. 1968. PACIFIC HARBOUR SEAL. NO. 20. IN FISH. RES. BD. CAN., ARCT. BIOL. STN., ANNU. REP., (1967-1968). (RESTRICTED).

NOT SEEN. SUPPOSED TO CONTAIN INFORMATION ON POPULATION DYNAMICS.

441. PITCHER, K.W. 1977. POPULATION PRODUCTIVITY AND FOOD HABITS OF HARBOR SEALS IN THE PRINCE WILLIAM SOUND - COPPER RIVER DELTA AREA, ALASKA. MARINE MAMMAL COMMISSION REPORT MMC-75/03, NTIS PB 266 935. 36 P.

RESULTS BASED ON THE STUDY OF 199 SEALS. DATA INCLUDES PREGNANCY RATES BY AGE CLASSES, AVERAGE ANNUAL MORTALITY RATE FOR AGES 4-21 YEARS, AND GROSS ANNUAL PRODUCTIVITY OF THE POPULATION. (M,R)

422. PITCHER, K. AND D. CALKINS. 1977. BIOLOGY OF THE HARBOR SEAL, PHOCA VITULINA RICHARDII, IN THE GULF OF ALASKA. PP. 189-225. IN ENVIRONMENTAL ASSESSMENT OF THE ALASKAN CONTINENTAL SHELF. VOL. 1. RECEPTORS - MAMMALS. NOAA, BOULDER CO., ENVIRONMENTAL RES. LABS, B.L.M. WASH., D.C. NTIS PB 280 934/1ST.

RESULTS BASED ON THE STUDIES OF 154 SEALS. DATA INCLUDES AGE OF SEXUAL MATURITY FOR BOTH SEXES AND AGE SPECIFIC REPRODUCTIVE RATES. (R)

443. REIJNDERS, P.J.H. AND H.G. FRANSZ. 1977. RECRUITMENT IN THE HARBOR SEAL (PHOCA VITULINA) POPULATION IN THE DUTCH WADDEN SEA (ABSTRACT). PROCEEDINGS OF THE SECOND CONFERENCE ON THE BIOLOGY OF MARINE MAMMALS. SAN DIEGO, CA., DEC. 12-15, 1977.

BRIEF DISCUSSION ON BIRTH RATES AND MORTALITY RATES.

444. RICE, D.W. 1963. THE WHALE MARKING CRUISE OF THE SIOUX CITY OFF CALIFORNIA AND BAJA, CALIFORNIA. NORSK HVAL-TID. 52(6):153-160.

PHOCA

CONTAINS A SIGHTING RECORD OF 15 HARBOR SEALS IN SAN FRANCISCO BAY IN NOVEMBER 1962.

(D)

445. RISEBROUGH, R.W., ETC. 1978. POPULATION BIOLOGY OF HARBOR SEALS IN SAN FRANCISCO BAY, CALIFORNIA. FINAL REP., MARINE MAMMAL COMM., CONTRACT NO. MM6AC006, BY THE BODEGA BAY INSTITUTE OF POLLUTION ECOLOGY, BERKELEY, CALIF.

THIS REPORT ON THE HARBOR SEALS OF SAN FRANCISCO BAY PRESENTS DATA ON THEIR PRESENT POPULATION STATUS, THEIR DISTRIBUTION IN THE BAY, AND THEIR REPRODUCTION. IT ALSO CRITICALLY ASSESSES THE EFFECTS POLLUTION IN ITS MANY FORMS MAY BE HAVING ON THIS POPULATION, INCLUDING THE INDUCTION OF PREMATURE BIRTHS. PERIODIC GROUND AND AERIAL CENSUSES WERE UNDERTAKEN FROM SEPTEMBER 1976, THROUGH MID-1977 AT ALL KNOWN HAUL-OUT AREAS IN SAN FRANCISCO BAY AND VICINITY. SOME OF THE AREAS SURVEYED IN THE VICINITY OF S.F. BAY INCLUDE BOLINAS LAGOON AND DOUBLE POINT, POINT REYES PENINSULA. COUNTS INCLUDE TOTAL NUMBER OF ANIMALS AND TOTAL NUMBER OF PUPS OBSERVED. DISCUSSES REPRODUCTIVE AND MORTALITY RATES FROM VARIOUS SURVEY AREAS.

(D,M,P,R)

446. ROSENTHAL, R.J. 1968. HARBOR SEAL CENSUS IN HUMBOLDT BAY DURING 1966 AND 1967. CALIF. FISH & GAME 54(4):304-305.

CONTAINS CENSUS DATA FROM EARLY WINTER TO SUMMER INCLUDING THE NUMBER OF PUPS PRESENT.

(P)

447. SCHEFFER, T.H. 1928. PRECARIOUS STATUS OF THE SEAL AND SEA LION ON OUR NORTHWEST COAST. J. MAMMAL. 9(1):10-16.

BRIEFLY DISCUSSES MARINE MAMMAL/FISHERY INTERACTIONS. DISCUSSES STOMACH EXAMINATIONS OF 35 HARBOR SEALS TAKEN IN PUGET SOUND, WASHINGTON.

(F)

448. SCHEFFER, T.H. AND C.C. SPERRY. 1931. FOOD HABITS OF THE PACIFIC HARBOR SEAL, PHOCA RICHARDII. J. MAMMAL. 12(3): 214-226.

CONTAINS AN ANALYSIS OF STOMACH CONTENTS OF 100 SEALS TAKEN IN PUGET SOUND AND THE COASTAL WATERS OF WASHINGTON FROM DECEMBER 1927 TO AUGUST 1930. FISH COMPRISED 93.58 PER CENT OF THE FOOD. THE CHIEF SPECIES WERE TOM-COD, FLOUNDERS, PACIFIC HERRING, HAKE, SCULPINS, COD, POLLACK, AND SHINERS. MAY BE IMPORTANT IN STUDYING HARBOR SEAL/COMMERCIAL FISHERY INTERACTIONS OFF CALIFORNIA.

(F)

PHOCA

449. SCHEFFER, V.B. 1958. SEALS, SEA LIONS, AND WALRUSES. A REVIEW OF THE PINNIPEDIA. STANFORD, CALIF.: STANFORD UNIV. PRESS. 179 P.

PAGES 92-93 DISCUSS THE OVERALL RANGE OF HARBOR SEALS. DISTRIBUTION MAP INCLUDED ON PAGE 88. (D)

450. SHAUGHNESSY, P.D. 1977. A REVIEW OF THE TAXONOMY AND NOMENCLATURE OF NORTH PACIFIC HARBOUR SEALS. J. ZOOL. (LOND.) 182(3):385-420.

GIVES DISTRIBUTION FROM NORTHWESTERN MEXICO TO ALASKA. INCLUDES BREEDING HABITS AND TIME AND PLACE OF BIRTH. (D)

451. SMITH, T.G. 1975. PARAMETERS AND DYNAMICS OF RINGED SEAL POPULATIONS IN THE CANADIAN EASTERN ARCTIC. PP. 281-295. IN (RONALD, K. AND A.W. MANSFIELD, EDS.), BIOLOGY OF THE SEAL. INT. COUNC. EXPLOR. SEA, (I.C.E.S.), RAPP. & P.-V. REUN., 169.

CONTAINS DATA ON REPRODUCTIVE RATES BY AGE, MORTALITY RATES, AND LIFE TABLES. DATA MAY BE PERTINENT TO HARBOR SEALS. (M,R)

452. SPAULDING, D.J. 1964. COMPARATIVE FEEDING HABITS OF THE FUR SEAL, SEA LION, AND HARBOUR SEAL ON THE BRITISH COLUMBIA COAST. FISH. RES. BD. CAN., BULL. 146, 51 P.

126 HARBOR SEAL SPECIMENS WERE STUDIED. EMPHASIS WAS PLACED ON COMMERCIAL FISH SPECIES WITH HERRING AND SALMON MAKING UP 12% AND 30% OF THE DIET RESPECTIVELY. (F)

453. SUMMERS, C.F. AND M.D. MOUNTFORD. 1975. COUNTING THE COMMON SEAL. NATURE, (LONDON), 253(5494):670-671.

CONTAINS ESTIMATES OF HARBOR SEAL PUP PRODUCTION FOR 1968-1973 IN THE WASH PART OF ENGLAND. GIVES CONVERSION OF PUP PRODUCTION TO AN ALL AGE ESTIMATE FOR THE POPULATION. (R)

454. TIKHOMIROV, E.A. 1971. (BODY GROWTH AND DEVELOPMENT OF REPRODUCTIVE ORGANS OF THE NORTH PACIFIC PHOCIDS.) PP. 213-241. IN (ARSENIEV, V.A. AND K.I. PANIN, EDS.), (PINNIPEDS OF THE NORTH PACIFIC.) ISRAEL PROGRAM FOR SCIENTIFIC TRANSLATIONS, JERUSALEM (VNIRO). TRUDY, VOL. 68.

GIVES THE GROWTH RATE OF THE BODY, THE DEVELOPMENT OF THE REPRODUCTIVE ORGANS, AND THE LONGEVITY OF HARBOR SEALS. (R)

PHOCA

455. TOWNSEND, W.E. 1977. A HARBOR SEAL IS BORN. PAC. DISC.
30(2):24-27.

BRIEFLY MENTIONS SIGHTINGS AND A BIRTH IN CARMEL, CALIFORNIA.

(D)

456. U.S. DEPARTMENT OF COMMERCE. 1978. REPORT OF THE SECRETARY
OF COMMERCE ON ADMINISTRATION OF THE MARINE MAMMAL PRO-
TECTION ACT OF 1972. ANNUAL REPORT, APRIL 1, 1977 TO
MARCH 31, 1978. PREPARED BY NOAA (NMFS). 183 P.

PAGES 63-65 DISCUSS OVERALL DISTRIBUTION, MIGRATION, ABUN-
DANCE, REPRODUCTIVE DATA, FEEDING HABITS, DISEASES, AND
ALLOCATION PROBLEMS OF HARBOR SEALS.

(D,P,R)

457. U.S. GEOLOGICAL SURVEY. 1976. MARINE MAMMALS. PP. 303-320.
IN FINAL ENVIRONMENTAL STATEMENT OIL AND GAS DEVELOPMENT
IN THE SANTA BARBARA CHANNEL OUTER CONTINENTAL SHELF OFF
CALIFORNIA. VOL. 2 OF 3. U.S. DEPT. INTER.

PAGE 313 CONTAINS HARBOR SEAL POPULATION ESTIMATE FOR CALIF-
ORNIA, INCLUDING NUMBER OBSERVED ON SAN MIGUEL ISLAND DURING
1973. PAGE 318 CONTAINS A CHART SHOWING THE APPROXIMATE TIMES
OF HARBOR SEAL ACTIVITY ON THE SANTA BARBARA CHANNEL ISLANDS.

(P)

458. WOODHOUSE, C.D., P.W. COLLINS, AND F.G. HOCHBERG. 1977.
MARINE MAMMAL STRANDINGS IN THE SANTA BARBARA REGION
FROM 1975 TO 1977. PP. 4-5. IN PRESENTATION ABSTR.,
MARINE MAMMAL STRANDING WORKSHOP. ATHENS, GEORGIA, AUG.
10-12, 1977. (WILL BE PUBLISHED BY NTIS).

MENTIONS THE AVERAGE ANNUAL NUMBER OF HARBOR SEAL STRANDINGS.

(D,M)

ZALOPHUS CALIFORNIANUS - CALIFORNIA SEA LION

459. AINLEY, D.G., H.R. HUBER, R.P. HENDERSON, AND T.J. LEWIS. 1977.
STUDIES OF MARINE MAMMALS AT THE FARALLON ISLANDS, CALIFORNIA,
1970-1975. MARINE MAMMAL COMMISSION REPORT MMC-74/04, NTIS PB
274 046. 42 P.

STATES THAT CALIFORNIA SEA LIONS HAVE BEEN INCREASING IN NUMBER. (D,P)
PUPS WERE BORN IN 1974 AND 1975, THE MOST NORTHERN PUPPING RECORD
FOR THE SPECIES. MANY MORE SEA LIONS OCCUPY THE ISLANDS DURING
THE SPRING THAN THE FALL.

460. AINLEY, D.G., H.R. HUBER, R.P. HENDERSON, T.J. LEWIS, AND S.H.
MORRELL. 1977. STUDIES OF MARINE MAMMALS AT THE FARALLON
ISLANDS, CALIFORNIA, 1975-76. MARINE MAMMAL COMMISSION
REPORT MMC-75/02, NTIS PB 266 249. 32 P.

LARGE NUMBERS OF CALIFORNIA SEA LIONS WERE AGAIN PRESENT. A (D,F,P)
PUP WAS BORN FOR THE THIRD CONSECUTIVE YEAR. POPULATION DYNAMICS
OF THIS SPECIES ARE RELATED TO MOVEMENTS OF FISH PREY. INCLUDES
A CHART WITH CENSUS TOTALS FROM 1971 TO 1976. ALSO CONTAINS A
GRAPH COMPARING CALIFORNIA SEA LION NUMBERS, THE PROPORTION OF
HAKE IN THEIR DIET, AND THE NUMBER OF HAKE FISHING VESSELS.

461. AINLEY, D.G., H.R. HUBER, S. MORRELL, AND R.H. LEVALLEY. 1978.
STUDIES AT THE FARALLON ISLANDS, 1977. FINAL REP., MARINE
MAMMAL COMM., CONTRACT NO. MM6A C027, WASH. DC

NOT SEEN.

462. AMERICAN SOCIETY OF MAMMALOGIST. 1971. REPORT OF STANDING COMMITTEE,
MARINE MAMMALS 1970-1971. IN AMERICAN SOCIETY OF MAMMALOGISTS,
51ST ANNU. MEET. AM. SOC. MAMMAL., SEATTLE, WA. 46 P.

PAGE 11 BRIEFLY DISCUSSES THE MORTALITY RATE OF CALIFORNIA SEA (M)
LIONS ON SAN MIGUEL ISLAND IN 1971.

463. ANDERSON, H. 1960. SEA LION - CREATURE OF CONTROVERSY. PRE-
SENTED TO SENATE FACT FINDING COMM. NAT. RESOUR., FORT BRAGG,
CALIF. MANUSCR.

DISCUSSES THE HISTORY OF THE SEA LION CONTROVERSY IN CALIFORNIA. (F,P)
INCLUDES STATUS OF CALIFORNIA SEA LION POPULATIONS, FEEDING HABITS,
EFFECT OF SEA LIONS ON FISHERY RESOURCES, THE DESTRUCTION OF
FISHING GEAR, AND POSSIBLE CONTROL METHODS.

464. ANONYMOUS. 1927. WHAT DO SEA LIONS EAT? CALIF. FISH & GAME
13(2):119-120.

SOUTHERN CALIFORNIA FISHERMEN COMPLAIN THAT SEA LIONS ARE KILLING (F)
OFF LARGE NUMBER OF FISH.

ZALOPHUS

465. ANONYMOUS. 1929. SEA LIONS WRONGFULLY ACCUSED. CALIF. FISH & GAME 15(4):341.

COMMERCIAL FISHING INTERESTS DENOUNCE THE COLONIES OF SEA LIONS WHICH EXIST ON THE COAST OF SOUTHERN CALIFORNIA CLAIMING THAT THEY ARE VERY DESTRUCTIVE TO FISH AND ARE INJURING THE FISHERIES INTERESTS. AN INVESTIGATION BY THE CALIFORNIA DIVISION OF FISH AND GAME HAS FOUND THE CHARGES GREATLY EXAGGERATED AND THAT SEA LIONS MAY BE OF MORE BENEFIT TO THE FISHERIES INTERESTS THAN OTHERWISE.

(F)

466. ANONYMOUS. 1950. NEWSPAPER CLIPPING ON ZALOPHUS. MAR. MAM. DIV., U.S. DEPT. COMMER., NOAA(NMFS), NORTHWEST AND ALASKA FISHERIES CENTER, SEATTLE, WA.

BRIEF ACCOUNT OF A FISHERMAN KILLED OFF CATALINA ISLAND BY HIS OWN GUN, WHEN HE SLIPPED IN HIS BOAT TRYING TO SHOOT AT SEA LIONS ATTACKING HIS NET FULL OF MACKEREL.

(F)

467. ANTONELIS, G.A. AND R.L. DeLONG. UNPUBLISHED ZALOPHUS DATA. MAR. MAM. DIV., U.S. DEPT. COMMER., NOAA(NMFS), NORTHWEST AND ALASKA FISHERIES CENTER, SEATTLE, WA.

BOB DeLONG HAS BEEN ON SAN MIGUEL ISLAND PERIODICALLY SINCE 1969 AND BUD ANTONELIS SINCE 1974. DATA IS AVAILABLE ON POPULATION SIZE, PUP PRODUCTION, AND PUP MORTALITY. MOST OF THIS DATA IS IN VERY ROUGH FORM OR HAS NOT BEEN WORKED UP AS OF YET.

(M,P,R)

468. BARTHOLOMEW, G.A. 1951. SPRING, SUMMER, AND FALL CENSUSES OF THE PINNIPEDS ON SAN NICOLAS ISLAND, CALIFORNIA. J. MAMMAL. 32(1):15-21.

CONTAINS DATA FROM SIX CENSUSES FOR CALIFORNIA SEA LIONS FROM MAY 1949 TO APRIL 1950. INCLUDES NUMBER OF NEWBORN PUPS AND TOTAL NUMBER OF SEA LIONS ONE YEAR OLD OR OLDER.

(P,R)

469. BARTHOLOMEW, G.A., JR. 1967. SEAL AND SEA LION POPULATIONS OF THE CALIFORNIA ISLANDS. PP. 229-244. IN (PHILBRICK, R.N., ED.), PROC. SYMP. ON THE BIOLOGY OF THE CALIFORNIA ISLANDS. SANTA BARBARA BOTANIC GARDEN.

DISCUSSES CALIFORNIA SEA LION DISTRIBUTION, SEASONAL MIGRATIONS, AND NOTES THAT THE POPULATION MAY HAVE BEGUN TO LEVEL OFF AFTER ITS LONG PERIOD OF GROWTH.

(D,P)

470. BARTHOLOMEW, G.A. AND R.A. BOOTLOOTIAN. 1960. NUMBERS AND POPULATION STRUCTURE OF THE PINNIPEDS ON THE CALIFORNIA CHANNEL ISLANDS. J. MAMMAL. 41(3):366-375.

DISCUSSES DISTRIBUTION OF CALIFORNIA SEA LIONS. CONTAINS CENSUS DATA BY ISLAND WITH AGE AND SEX COMPOSITIONS DURING 1958-1959.

(D,M,P,R)

ZALOPHUS

MENTIONS THAT THE NUMBERS OF SEA LIONS HAVE INCREASED LOG-
ARITHMICALLY SINCE 1930.

1. BARTHOLOMEW, G.A., R.D. COLLYER, AND W.R. DAWSON. 1951. THE SEA LION POPULATION OF SANTA BARBARA ISLAND, CALIFORNIA, IN THE 1950 BREEDING SEASON. CALIF. FISH & GAME 37(1):65-68.

CONTAINS GROUND SURVEY OF CALIFORNIA SEA LIONS. INCLUDES A CHART WITH SEX AND AGE COMPOSITIONS. MENTIONS THAT THE POPULATION IS AT THE HIGHEST POINT THAT IT HAS ATTAINED DURING THE PAST QUARTER OF A CENTURY. (M,P,R)

2. BARTHOLOMEW, G.A. AND C.L. HUBBS. 1952. WINTER POPULATION OF PINNIPEDS ABOUT GUADALUPE, SAN BENITO, AND CEDROS ISLANDS, BAJA CALIFORNIA. J. MAMMAL. 33(2):160-171.

DISCUSSES POSSIBLE SEASONAL MOVEMENTS OF ADULT CALIFORNIA SEA LIONS INTO CALIFORNIA WATERS. (D)

3. BIGG, M.A. 1973. CENSUS OF CALIFORNIA SEA LIONS ON SOUTHERN VANCOUVER ISLAND, BRITISH COLUMBIA. J. MAMMAL. 54:285-287.

BRIEFLY DISCUSSES THE NORTHERN RANGE EXTENSION OF ZALOPHUS DURING THE NONBREEDING SEASON. (D)

4. BONNOT, P. 1928. REPORT ON THE SEALS AND SEA LIONS OF CALIFORNIA. CALIF. DEPT. FISH & GAME, FISH BULL. 14,62 P.

INCLUDES RANGE, SIGHTINGS, SEX RATIOS, AND POPULATION CENSUSES FOR CALIFORNIA SEA LIONS FOR 1927 AND 1928. MENTIONS INTERACTIONS WITH COMMERCIAL FISHERIES. (D,F,P)

5. BONNOT, P. 1931. THE CALIFORNIA SEA LION CENSUS FOR 1930. CALIF. FISH & GAME 17(2):150-155.

CONTAINS A CENSUS OF ROOKERIES AND HAULING OUT GROUNDS. INCLUDES A CHART WITH CENSUS COUNTS FOR 1927, 1928 AND 1930. (D,P)

6. BONNOT, P. 1937. CALIFORNIA SEA LION CENSUS FOR 1936. CALIF. FISH & GAME 23(2):108-112.

CONTAINS A CENSUS OF ROOKERIES AND HAULING OUT GROUNDS WITH REFERENCE TO THE NUMBER OF BULLS AND COWS. INCLUDES A CHART WITH CENSUS COUNTS FOR 1927, 1928 AND 1936. (D,P)

7. BONNOT, P. 1951. THE SEA LIONS, SEALS AND SEA OTTER OF THE CALIFORNIA COAST. CALIF. FISH & GAME 37(4):371-389.

DISCUSSES CALIFORNIA SEA LION RANGE, AGE OF SEXUAL MATURITY, FREQUENCY OF PREGNANCY, NATURAL MORTALITY, AND INTERACTIONS WITH COMMERCIAL FISHERIES. (D,F,M,P,R)

ZALOPHUS

478. BONNOT, P., G.H. CLARK, AND S.R. HATTON. 1938. CALIFORNIA SEA LION CENSUS FOR 1938. CALIF. FISH & GAME 24(4):415-419.

CONTAINS A CENSUS OF ROOKERIES AND HAULING OUT GROUNDS WITH REFERENCE TO THE NUMBER OF BULLS AND COWS. INCLUDES A CHART WITH CENSUS COUNTS FOR 1927, 1928, 1930, 1936 AND 1938.

(D,P)

479. BONNOT, P. AND W.E. RIPLEY. 1948. THE CALIFORNIA SEA LION CENSUS FOR 1947. CALIF. FISH & GAME 34(3):89-92.

CONTAINS A CENSUS OF ROOKERIES AND HAULING OUT GROUNDS. INCLUDES A CHART WITH A NUMERICAL COMPARISON OF EARLIER CENSUSES.

(D,P)

480. BRAHAM, H.W. 1972. POPULATION COUNTS OF THE CALIFORNIA SEA LION, ZALOPHUS CALIFORNIANUS, ON MAJOR INTERMEDIATE HAULING GROUNDS ALONG THE CENTRAL COAST OF CALIFORNIA. COLLEGE OF BIOLOGICAL SCIENCES, OHIO STATE UNIV., COLUMBUS, OH. 10 P.

NOT SEEN.

481. BRAHAM, H.W. 1974. THE CALIFORNIA SEA LION ON ISLANDS OFF THE COAST OF SAN LUIS OBISPO COUNTY, CALIFORNIA, U.S.A. CALIF. FISH & GAME 60(2):79-83.

THE NUMBER OF CALIFORNIA SEA LIONS ON SIX SMALL ISLANDS WERE COUNTED EACH MONTH FROM MAY 1971 TO MAY 1972.

(D,P)

482. BRIGGS, K.T. AND C.W. DAVIS. 1972. A STUDY OF THE PREDATION BY SEA LIONS ON SALMON IN MONTEREY BAY. CALIF. FISH & GAME 58(1):37-43.

INCLUDES AN ANALYSIS OF ON LINE PREDATION OF SALMON BY CALIFORNIA SEA LIONS AND PREDATION OF FREE SWIMMING SALMON BY SEA LIONS. MENTIONS THAT CALIFORNIA SEA LIONS ACCOUNTED FOR A LOSS OF 4.1% OF THE SPORT AND COMMERCIAL SALMON CATCH SAMPLED BETWEEN MID-APRIL AND MID-SEPTEMBER 1969.

(F)

483. BROWN, D. UNPUBLISHED ZALOPHUS DATA. PT. REYES NATL. SEASHORE, PT. REYES, CALIF.

AN INTERMITTANT ZALOPHUS CENSUS WAS CONDUCTED AT PT. REYES DURING 1968 AND 1969. DURING EACH CENSUS ALL ANIMALS WERE COUNTED AT LEAST TWICE TO INSURE ACCURATE COUNTS. CENSUS DATA INCLUDES DATE, LOCATION, WEATHER CONDITIONS, TIDE LEVEL, TOTAL NUMBER OF OBVIOUS MALES, TOTAL NUMBER OF ALL OTHER ANIMALS, AND NOTES TOTAL NUMBER OF PUPS OR JUVENILES WHEN OBSERVED. A MAP IS AVAILABLE SHOWING

(D,P)

ZALOPHUS

THE LOCATION OF THE ZALOPHUS HAULING OUT AREA WITHIN THE PARK. ALSO ON FILE AT THE PARK ARE UNPUBLISHED ZALOPHUS COUNTS FOR 1967-1968 FROM SEVEN LOCATIONS IN CALIFORNIA. CENSUSES WERE DONE THROUGH U.C. SANTA CRUZ IN ORDER TO SHOW SEASONAL TRENDS IN ABUNDANCE. DATA IS IN THE FORM OF GRAPHS ONLY AND COVERS THE FOLLOWING AREAS: PT. REYES, FARALLON ISLANDS, MONTEREY BREAKWATER, BIRD ROCK, CYPRESS POINT, POINT LOBOS, AND BIG SUR.

84. BROWNELL, R.L., JR., R.L. DeLONG, AND R.W. SHREIBER. 1974. PINNIPED POPULATIONS AT ISLAS DE GUADALUPE, SAN BENITO, CEDROS, AND NATIVIDAD, BAJA CALIFORNIA, IN 1968. J. MAMMAL. 55:469-472.

CONTAINS CENSUS DATA ON NUMBERS OF CALIFORNIA SEA LIONS SEEN IN APRIL AND JUNE 1968. MAYBE IMPORTANT BECAUSE MALES ARE KNOWN TO MIGRATE NORTHWARD AFTER THE BREEDING SEASON. (P)

85. BROWNELL, R.L. AND B.J. LeBOEUF. 1971. CALIFORNIA SEA LION MORTALITY: NATURAL OR ARTIFACT? VOL. 1:287-306. IN (STRAUGHAN, D., ED.), BIOLOGICAL AND OCEANOGRAPHICAL SURVEY OF THE SANTA BARBARA CHANNEL OIL SPILL, 1969-1970. UNIV. SO. CALIF., ALLAN HANCOCK FOUNDATION.

DISCUSSES NATURAL MORTALITY AND MORTALITY ASSOCIATED WITH OIL SPILLS AND PESTICIDES. (M)

86. BUREAU OF LAND MANAGEMENT. 1975. MARINE MAMMALS. PP. 407-445. IN FINAL ENVIRONMENTAL STATEMENT PROPOSED 1975 OUTER CONTINENTAL SHELF OIL AND GAS GENERAL LEASE SALE OFFSHORE SOUTHERN CALIFORNIA. VOL. 1 OF 5. U.S. DEPT. INTER.

PAGES 432-445 INCLUDE INFORMATION ON RANGE AND BREEDING GROUNDS, POPULATION SIZE, LIFE HISTORY, AND DISEASES OF CALIFORNIA SEA LIONS. INCLUDES MAPS OF BREEDING AND HAULING OUT GROUNDS. (D,M,P)

87. BUREAU OF MARINE FISHERIES. 1947. CALIFORNIA SEA LION CENSUS FOR 1946. CALIF. FISH & GAME 33(1):19-22.

CONTAINS A CENSUS OF ROOKERIES AND HAULING OUT GROUNDS. INCLUDES A CHART WITH A NUMERICAL COMPARISON OF EARLIER CENSUSES. (D,P)

88. CALIFORNIA COOPERATIVE FISHERIES INVESTIGATIONS (CALCOFI). DATA REPORTS 1-26. STATE OF CALIF., DEPT. FISH & GAME, MARINE RESEARCH COMM., 1965-1977.

DURING PELAGIC FISH SURVEYS ALONG THE CALIFORNIA AND BAJA CALIFORNIA COASTS, MARINE MAMMAL SIGHTINGS WERE RECORDED. SPECIES (D)

ZALOPHUS

CAPTURED, DETECTED, OR OBSERVED AT A CRUISE STATION ARE EXPRESSED IN A NUMERICAL CODE. THE SCIENTIFIC AND COMMON NAMES CORRESPONDING TO EACH CODE ARE LISTED IN APPENDIX 1 OF EACH DATA REPORT. SEA LION SIGHTINGS ARE RECORDED IN DATA REPORTS 1-11, 17-24, AND 26.

489. CALIFORNIA DEPARTMENT FISH AND GAME. 1958. MARINE RESOURCES OPERATIONS - AIRPLANE SPOTTING FLIGHT 58-9. CALIF. DEPT. FISH & GAME, SACRAMENTO, CALIF.

CONTAINS AERIAL CRUISE TRACK OF SEA LION CENSUS FOR THE ENTIRE COAST AND OFFSHORE ISLANDS OF CALIFORNIA DURING JUNE 1958. (E)

490. CARLISLE, J.G. AND J.A. APLIN. 1966. SEA LION CENSUS FOR 1965, INCLUDING COUNTS OF OTHER CALIFORNIA PINNIPEDS. CALIF. FISH & GAME 52(2):119-120.

CONTAINS A CALIFORNIA SEA LION CENSUS OF ROOKERIES AND HAULING OUT GROUNDS WITH A COMPARISON TO DISTRIBUTION IN PREVIOUS YEARS. (D,P)

491. CARLISLE, J.G. AND J.A. APLIN. 1971. SEA LION CENSUS FOR 1970, INCLUDING COUNTS OF OTHER CALIFORNIA PINNIPEDS. CALIF. FISH & GAME 57(3):124-126.

CONTAINS A CALIFORNIA SEA LION CENSUS OF ROOKERIES AND HAULING OUT GROUNDS WITH A COMPARISON TO DISTRIBUTION IN PREVIOUS YEARS. (D,P)

492. CHAMBERS, J.R., JR. THE CALIFORNIA SEA LION ON ISLANDS IN THE VICINITY OF DIABLO CANYON, SAN LUIS OBISPO COUNTY, CALIFORNIA. M.SC. THESIS, CALIF. POLYTECHNIC STATE UNIV., SAN LUIS OBISPO. (IN PROGRESS).

NOT SEEN. SUPPOSED TO BE COMPLETED IN MID 1979.

493. COLLYER, R.D. AND J.L. BAXTER. 1951. OBSERVATIONS ON PINNIPEDS OF SAN MIGUEL ISLAND. CALIF. FISH & GAME 37(4):511.

CONTAINS A POPULATION ESTIMATE FOR CALIFORNIA SEA LIONS IN MAY OF 1951. (P)

494. DeLONG, R.L. 1970. CALIFORNIA SEA LION MORTALITY ON OILED "NORTHWEST BEACH," SAN MIGUEL ISLAND, CALIFORNIA, SUMMER, 1969. MAR. MAM. BIOL. LAB., BUR. COMMER. FISH., U.S. FISH WILDL. SERV., SEATTLE, WA. 3 P.

EIGHT MORTALITY SURVEYS WERE CONDUCTED ON SAN MIGUEL ISLAND AFTER THE OIL SPILL OFF SANTA BARBARA IN JANUARY OF 1969. COUNTS INCLUDED THE NUMBER OF NON-OILED AND OILED LIVE AND (M)

ZALOPHUS

DEAD PUPS. STATES THAT IT WAS NOT POSSIBLE TO ARRIVE AT AN ACCEPTABLE FIGURE FOR ANNUAL MORTALITY OF ZALOPHUS PUPS OR DETERMINE WHAT IF ANY THE INFLUENCE OF OIL MIGHT HAVE HAD ON MORTALITY.

495. DYCHE, L.L. 1903. NOTES ON THE FOOD HABITS OF CALIFORNIA SEA LIONS. KANSAS ACAD. SCI., TRANS. 18:179-182.

DISCUSSES OBSERVATIONS MADE ON THE FOOD HABITS OF SEA LIONS DURING THE MONTHS OF JUNE - SEPTEMBER 1899 IN THE MONTEREY BAY REGION. (D,F)
ANIMALS INCLUDED EIGHT THAT HAD BEEN WASHED ASHORE DEAD APPARENTLY SHOT BY SALMON FISHERMEN AND 12 KILLED DURING THE COURSE OF THE STUDY. THE MAJORITY OF THE STOMACHS EXAMINED ALL CONTAINED SQUID. MENTIONS CONFLICT BETWEEN SALMON TROLLERS AND SEA LIONS. OBSERVATIONS SHOW THAT WHERE FISH AND SQUID ARE BOTH IN THE WATERS THE SEA LIONS PREFER THE SQUID.

496. FINK, B.D. 1959. OBSERVATION OF PORPOISE PREDATION ON A SCHOOL OF PACIFIC SARDINES. CALIF. FISH & GAME 45(3):216-217.

OBSERVED SIGHTING OF HARBOR PORPOISES AND APPROXIMATELY 30 TO 50 CALIFORNIA SEA LIONS ATTACKING A SCHOOL OF SARDINES IN MONTEREY BAY. (D)

497. FISCUS, C.H. 1977. A SUMMARY OF INFORMATION ON THE PACIFIC HAKE, MERLUCCIIUS PRODUCTUS, THE FISHERY, AND MARINE MAMMALS. MARINE MAMMAL DIVISION, NORTHWEST ALASKA FISHERIES CENTER FOR THE MARINE MAMMAL/FISHERIES WORKSHOP, 19-20 DEC. 1977, SEATTLE, WA. 25 P.

DISCUSSES THE BIOLOGY, FEEDING HABITS, RANGE, POPULATION SIZE, AND COMMERCIAL FISHERY FOR HAKE. INCLUDES INFORMATION ON THE OVERALL DISTRIBUTION OF CALIFORNIA SEA LIONS, THEIR ESTIMATED POPULATION SIZE IN HAKE RANGE, TOTAL POPULATION SIZE, AND THEIR RELATIONSHIP TO HAKE. (D,F,P)

498. FISCUS, C.H. AND G.A. BAINES. 1966. FOOD AND FEEDING BEHAVIOR OF STELLER AND CALIFORNIA SEA LIONS. J. MAMMAL. 47(2): 195-200.

DISCUSSES RESEARCH CONDUCTED FROM CALIFORNIA TO THE BERING SEA. 34 STELLERS AND 7 CALIFORNIA SEA LIONS WERE TAKEN AT SEA AND THEIR STOMACHS EXAMINED. DATA ON THE LOCATION, DATE OF CAPTURE, AND FOOD ITEMS FOUND IN THE STOMACHS ARE PRESENTED. NO EXTENSIVE PREDATION ON COMMERCIAL FISHES WAS FOUND. (D,F)

499. FREY, H.W. AND J.A. APLIN. 1970. SEA LION CENSUS FOR 1969, INCLUDING COUNTS OF OTHER CALIFORNIA PINNIPEDS. CALIF. FISH & GAME 56(2):30-133.

ZALOPHUS

CONTAINS A CALIFORNIA SEA LION CENSUS OF ROOKERIES AND HAULING OUT GROUNDS WITH A COMPARISON TO DISTRIBUTION IN PREVIOUS YEARS. (D,P)

500. FRY, D.H. 1939. A WINTER INFLUX OF SEA LIONS FROM LOWER CALIFORNIA. CALIF. FISH & GAME 25:245-250.

COUNTS CONDUCTED IN SOUTHERN CALIFORNIA IN MARCH 1939 WERE TWICE AS LARGE AS COUNTS CONDUCTED IN THE SUMMER OF 1938 FOR THE CALIFORNIA SEA LION. MENTIONS POSSIBLE SEASONAL MIGRATION OF SEA LIONS INTO CALIFORNIA AS AN ANSWER TO LARGER COUNTS. (D,P)

501. GILMARTIN, W.G., ET AL. 1976. PREMATURE PARTURITION IN THE CALIFORNIA SEA LION. J. WILDL. DIS. 12(1):104-115.

DISCUSSES MORTALITY DUE TO PREMATURE BIRTHS. MENTIONS THAT 20% OF THE PUPS ON SAN MIGUEL ISLAND DIE DUE TO PREMATURE PARTURITION. (M)

502. HANCOCK, D. 1970. CALIFORNIA SEA LION AS A REGULAR WINTER VISITANT OFF THE BRITISH COLUMBIA COAST. J. MAMMAL. 51:614.

MENTIONS THAT ZALOPHUS ARRIVE IN LATE OCTOBER, PEAK IN FEBRUARY, AND MOST DEPART BY THE END OF MAY. (D)

503. HUBBARD, R.C. 1970. CALIFORNIA SEA LION EPIZOOTIC DIAGNOSED AS LEPTOSPIROSIS. PP. 91-95. IN SYMP.: BIOLOGICAL SONAR AND DIVING MAMMALS, PROC. 7TH ANNU. CONF. BIOL. SONAR DIVING MAMM., 23-24 OCT. 1970. STANFORD RES. INST., BIOL. SONAR LAB., MENLO PARK, CALIF.

DISCUSSES THE 1970 SEA LION CRISIS IN WHICH A LARGE NUMBER OF STRANDINGS WERE REPORTED FROM FORT BRAGG, CALIFORNIA SOUTH TO CARMEL BAY, CALIFORNIA. INCLUDES NUMBER OF STRANDINGS, POSSIBLE CAUSE OF STRANDINGS, AND POSSIBLE MORTALITY RATE. (M)

504. JACKSON, R.A. 1972. A SEA MAMMAL TOUR. AUG. 20, 1972, SAN FRANCISCO SUNDAY EXAMINER & CHRONICLE (CALIF. LIVING MAG.).

PAGES 16-25 CONTAIN A BRIEF ACCOUNT OF WHEN AND WHERE TO OBSERVE MARINE MAMMALS ALONG THE NORTHERN CALIFORNIA COAST. INCLUDES THE CALIFORNIA SEA LION. ALSO INCLUDES A MAP. (D)

505. JAMESON, R.J. AND K.W. KENYON. 1977. PREY OF SEA LIONS IN THE ROGUE RIVER, OREGON. J. MAMMAL. 58(4):672.

BRIEFLY MENTIONS THAT CALIFORNIA SEA LIONS OFTEN ENTER THE LOWER REACHES OF RIVERS ALONG THE CALIFORNIA AND OREGON COASTS RESULTING IN COMPLAINTS FROM FISHERMEN THAT SEA LIONS ARE FEEDING ON ANADROMOUS SALMONIDS. (D,F)

ZALOPHUS

506. JENSEN, P.T. AND P.G. SWARTZELL. 1967. THE CALIFORNIA MARINE FISH CATCH FOR 1965 AND CALIFORNIA SALMON LANDINGS 1952-1965. CALIF. FISH & GAME, FISH BULL. 135, 57 P.

PAGES 43-57 CONTAIN DATA ON COMMERCIAL TROLL SALMON LANDINGS BY PORT, AREA, MONTH, AND SPECIES, IN POUNDS AND NUMBERS. MAY BE IMPORTANT SINCE THERE IS A KNOWN INTERACTION BETWEEN SEA LIONS AND COMMERCIAL SALMON TROLLERS. ALSO INCLUDES CATCH INFORMATION ON MACKEREL, SEA BASS, SHARKS, HERRING, HAKE, SQUID, AND OTHER KNOWN PREY SPECIES OF SEA LIONS. (F)

507. KENYON, K.W. AND V.B. SCHEFFER. 1953. THE SEALS, SEA LIONS, AND SEA OTTER OF THE PACIFIC COAST. U.S. FISH WILDL. SERV., WILDL. LEAFL. 344, 28 P.

BRIEFLY DISCUSSES OVERALL RANGE, BREEDING HABITS, AND FEEDING HABITS OF THE CALIFORNIA SEA LION. (D)

508. KING, J.E. 1964. SEALS OF THE WORLD. LONDON: BRITISH MUSEUM OF NATURAL HISTORY. 154 P.

PAGES 11-13 DISCUSS OVERALL DISTRIBUTION, POPULATION SIZE ON THE CALIFORNIA COAST, AND GENERAL BIOLOGY OF THE CALIFORNIA SEA LION. INCLUDES A DISTRIBUTION MAP. (D,P)

509. LANCE, C.C. AND R.S. PETERSON. 1968. SEASONAL FLUCTUATIONS IN POPULATIONS OF CALIFORNIA SEA LIONS. UNIV. CALIF., SANTA CRUZ. ANO NUEVO REP. 2:30-37.

DURING 1968 WEEKLY CENSUSES WERE CONDUCTED AT THE FARALLON ISLANDS, POINT REYES, ANO NUEVO ISLAND, SANTA CRUZ - SEAL ROCK, MONTEREY BREAKWATER, BIRD ROCK - 17 MILE DRIVE, CYPRESS POINT - 17 MILE DRIVE, POINT LOBOS, AND BIG SUR. CENSUSES WERE DONE IN ORDER TO DETERMINE WHETHER ANY PATTERN EXISTS IN THE SEASONAL FLUCTUATION OF AGGREGATION OF NON-BREEDING CALIFORNIA SEA LIONS. CENSUS DATA INCLUDES TOTAL NUMBER OF MALES OBSERVED AND CONCLUSIONS ARE DRAWN FROM CURVES DERIVED FROM THE DATA. SOME OF THE AREAS SHOWED NO CLEAR PEAKS, SOME SHOWED CLEAR SPRING AND AUTUMN PEAKS, AND SOME SHOWED ONLY A CLEAR SPRING OR AUTUMN PEAK. DATA WAS ALSO COLLECTED FOR EUMETOPIAS. (D,P)

510. LeBOEUF, B.J. 1968. REPORT OF A VISIT TO SAN MIGUEL ISLAND, 25-26 OCTOBER, 1968. UNIV. CALIF., SANTA CRUZ. 3 P. (UNPUBL REP.).

APPROXIMATELY 600 ZALOPHUS WERE OBSERVED IN OCTOBER 1968. (P)

ZALOPHUS

511. LeBOEUF, B.J. AND M.L. BONNELL. 1971. DDT IN CALIFORNIA SEA LIONS. NATURE, (LONDON), 234(5324):108-109.

TWENTY-FIVE SEA LIONS COLLECTED ALONG THE CALIFORNIA COAST WERE EXAMINED FOR DDT CONCENTRATIONS. MENTIONS THAT DDT RESIDUES MAY CAUSE REPRODUCTIVE FAILURE OR DECREASED RESISTANCE TO INFECTIOUS AGENTS. NOTES THAT ABORTIONS HAVE INCREASED SINCE 1968 OFF THE COAST OF CALIFORNIA.

(D,M)

512. MARINE MAMMAL DIVISION STAFF. 1977. IMPACT OF MARINE MAMMALS ON SALMON STOCKS. U.S. DEPT. COMMER., NOAA (NMFS), NORTHWEST AND ALASKA FISHERIES CENTER, SEATTLE, WA. 23 P.

BRIEFLY REVIEWS SALMON PREDATION BY CALIFORNIA SEA LIONS ALONG THE WESTERN COAST OF NORTH AMERICA. CONCLUSION NOTES THAT AT THE PRESENT TIME IT IS IMPOSSIBLE TO PROVIDE A CONCISE STATEMENT ABOUT THE IMPACT OF MARINE MAMMALS ON SALMON STOCKS.

(F)

513. MARINE RESOURCE OPERATIONS. 1958. AIRPLANE SPOTTING FLIGHTS 58-3, 58-6, 58-7, AND 58-13. CALIF. DEPT. FISH & GAME, SACRAMENTO, CALIF.

CONTAINS AERIAL SURVEY MAPS OF NORTHERN AND CENTRAL CALIFORNIA ASSESSING THE NUMBER OF PELAGIC FISH SCHOOLS AND COMMERCIAL SALMON TROLLERS. MAY BE HELPFUL IN DETERMINING AREAS TO STUDY FOR SEA LION/SALMON TROLLER INTERACTIONS.

(F)

514. MARTIN, J.H., P.D. ELLIOT, B.C. ANDERLINI, D. GIRVIN, S.A. JACOBS, R.W. RISEBROUGH, R.L. DeLONG, AND W.G. GILMARTIN. 1976. MERCURY-SELENIUM-BROMIUM IMBALANCE IN PREMATURE PARTURIENT CALIFORNIA SEA LIONS. MAR. BIOL., (BERL.), 35(1):91-104.

DISCUSSES THE ROLES THAT TRACE AND MAJOR ELEMENTS MAY HAVE IN HIGH PREMATURE BIRTH RATES IN ROOKERIES OFF CALIFORNIA. NOTES PREMATURE PUP COUNTS ON SAN MIGUEL ISLAND FOR 1970-1975.

(M)

515. MATE, B.R. 1973. POPULATION KINETICS AND RELATED ECOLOGY OF THE NORTHERN SEA LION, EUMETOPIAS JUBATUS, AND THE CALIFORNIA SEA LION, ZALOPHUS CALIFORNIANUS, ALONG THE OREGON COAST. PH.D. THESIS, UNIV. OREGON, EUGENE, OR. 94 P.

RESULTS OF STUDIES CONDUCTED FROM 1968-1971 ARE PRESENTED. APPENDIX II DISCUSSES FIELD AND LABORATORY DATA ON A WIDE-SPREAD ILLNESS FOUND AMONG ZALOPHUS. DATA INCLUDES AGE DISTRIBUTION OF COLLECTED DEAD ZALOPHUS, THE OCCURRENCE OF PREMATURE PUPPING, AND IDENTIFIED THE CAUSATIVE AGENT OF THE ILLNESS AS LEPTOSPIRA.

(M)

ZALOPHUS

16. MATE, B.R. 1975. ANNUAL MIGRATIONS OF THE SEA LIONS EUMETOPIAS JUBATUS AND ZALOPHUS CALIFORNIANUS ALONG THE OREGON COAST. PP. 455-461. IN (RONALD, K. AND A.W. MANSFIELD, EDS.), BIOLOGY OF THE SEAL. INT. COUNC. EXPLOR. SEA, (I.C.E.S.), RAPP. & P.-V. REUN., 169.

INCLUDES A MAP OF BREEDING RANGES ALONG NORTH AMERICA. DISCUSSES THE SEASONAL MIGRATION OF ZALOPHUS WITH REFERENCE TO AGE AND SEX DISTRIBUTIONS. (D)

17. MATE, B.R. 1976. HISTORY AND PRESENT STATUS OF THE CALIFORNIA SEA LION, ZALOPHUS CALIFORNIANUS. ADVISORY COMM. ON MAR. RESOUR. RES. U.S., F.A.O., ACMRR/MM/SC/39. 6P.

STATES NON-BREEDING RANGE FROM 19°-51°N LATITUDE AND BREEDING RANGE FROM 23°-34°N LATITUDE ALONG THE WEST COAST OF NORTH AMERICA. DISCUSSES SEASONAL DISTRIBUTION, HISTORIC EXPLOITATION, NATURAL POPULATION REGULATORS, EFFECTS OF MAN, AND POPULATION ESTIMATES. (D,P)

18. MATE, B.R. 1976. SPECIES DESCRIPTION CALIFORNIA SEA LION, ZALOPHUS CALIFORNIANUS. F.A.O., PINNIPED SPECIES SUMMARIES, 177 P.

PAGES 5-10 CONTAIN DATA ON OVERALL RANGE AND POPULATION SIZE, REPRODUCTION, MORTALITY, TROPHIC RELATIONSHIPS, AND RELATIONS TO MAN. (D,M,P,R)

19. MATE, B.R. 1977. AERIAL CENSUSING OF PINNIPEDS IN THE EASTERN PACIFIC FOR ASSESSMENT OF POPULATION NUMBERS, MIGRATORY DISTRIBUTIONS, ROOKERY STABILITY, BREEDING EFFORT, AND RECRUITMENT. MARINE MAMMAL COMMISSION REPORT MMC-75/01, NTIS PB 265 859. 67 P.

RESULTS OF SURVEYS COVERING 21°-51° NORTH LATITUDE FROM AUGUST 1974 - AUGUST 1975 ARE REPORTED. BREEDING SEASON COUNTS FOR CALIFORNIA SEA LIONS WERE 1½ TIMES AS GREAT AS THE PREVIOUS POPULATION ESTIMATE. INCLUDES MAPS OF LOCATIONS OF BREEDING AND HAULING OUT AREAS, GRAPHS WITH MAXIMUM COUNTS BY LATITUDE, AND DETAILS OF FLIGHT OBSERVATIONS. (D,P)

20. MATE, B.R. 1978. WORKSHOP REPORT FOR MARINE MAMMAL FISHERIES INTERACTIONS IN THE EASTERN PACIFIC. MATE, BRUCE R., OREGON STATE UNIV., NEWPORT, OR. FINAL REPORT TO U.S. MARINE MAMMAL COMMISSION FOR CONTRACT MM8AC-003. 91 P.

DETAILED DISCUSSION ON MARINE MAMMAL FISHERY INTERACTIONS. INCLUDES INTERACTIONS WITH SET GEAR AND TOWED GEAR. MENTIONS THAT (F)

ZALOPHUS

IN CALIFORNIA THE MOST SERIOUS INTERACTION APPEARS TO BE BETWEEN SEA LIONS AND THE SALMON TROLL FISHERY. ALSO NOTES SEA LION INTERFERENCE WITH PURSE SEINERS FISHING FOR SQUID AND PELAGIC FISH. CONTAINS A CHART WITH MARINE MAMMAL FEEDING HABITS, INCIDENTAL TAKE, AND INTERFERENCE WITH FISHERMEN.

521. McALLISTER, R. 1976. CALIFORNIA MARINE FISH LANDINGS FOR 1974. CALIF. FISH & GAME, FISH BULL. 166, 53 P.

PAGE 50 INCLUDES DATA ON COMMERCIAL TROLL SALMON LANDINGS BY PORT, AREA, MONTH, AND SPECIES, IN POUNDS AND NUMBERS. MAY BE IMPORTANT SINCE THERE IS A KNOWN INTERACTION BETWEEN SEA LIONS AND COMMERCIAL SALMON TROLLERS. ALSO INCLUDES CATCH INFORMATION ON MACKEREL, SEA BASS, SHARKS, HERRING, HAKE, SQUID, AND OTHER KNOWN PREY SPECIES OF SEA LIONS. (F)

522. MOREJOHN, G.V. 1968. A NORTHERN RECORD OF A FEMALE CALIFORNIA SEA LION. J. MAMMAL. 49(1):156.

A DEAD FEMALE FOUND ON ANO NUEVO ISLAND IS THE FARTHEST NORTH A FEMALE HAS EVER BEEN RECORDED. (D)

523. MOREJOHN, G.V. 1977. MARINE MAMMALS. PP. 1-74. IN (WINZLER AND KELLY, CONSULTING ENGINEERS), A SUMMARY OF KNOWLEDGE OF THE CENTRAL AND NORTHERN CALIFORNIA COASTAL ZONE AND OFFSHORE AREAS. VOL. 2. BIOLOGICAL CONDITIONS. BOOK 2. B.L.M. WASH. DC. NTIS PB 274 213/BST.

PAGES 15-17 CONTAIN INFORMATION ON DISTRIBUTION, LIFE HISTORY, BREEDING AREAS, MIGRATION, ECOLOGY, ECONOMIC IMPORTANCE AND ABUNDANCE OF CALIFORNIA SEA LIONS. ALSO INCLUDES A DISTRIBUTION MAP. (D,P)

524. NISHIWAKI, M. 1972. GENERAL BIOLOGY. PP. 3-204. IN (RIDGWAY, S.H., ED.), MAMMALS OF THE SEA: BIOLOGY AND MEDICINE. SPRINGFIELD, IL: C.C. THOMAS.

PAGES 141-143 DISCUSS OVERALL DISTRIBUTION, ABUNDANCE, AND GENERAL BIOLOGY OF CALIFORNIA SEA LIONS. (D,P)

525. ODELL, D.K. 1970. PREMATURE PUPPING IN THE CALIFORNIA SEA LION. PP. 185-190. IN SYMP.: BIOLOGICAL SONAR AND DIVING MAMMALS, PROC. 7TH ANNU. CONF. BIOL. SONAR DIVING MAMM., 23-24 OCT., 1970. STANFORD RES. INST., BIOL. SONAR LAB., MENLO PARK, CALIF.

DISCUSSES PREMATURE PUP COUNTS ON SAN NICHOLAS ISLAND IN 1969 AND 1970. CONTAINS A GRAPH COMPARING THE NUMBER OF FEMALES, LIVE PUPS, AND PREMATURE PUPS. MENTIONS POSSIBLE CAUSES OF PREMATURE PUPPING. (M,R)

ZALOPHUS

26. ODELL, D.K. 1971. CENSUSES OF PINNIPEDS BREEDING ON THE CALIFORNIA CHANNEL ISLANDS. J. MAMMAL. 52(1):187-190.
- CONTAINS AERIAL CENSUS DATA FOR CALIFORNIA SEA LIONS WITH AGE AND SEX DISTRIBUTIONS DURING JUNE 1964. (D,M,P,R)
27. ODELL, D.K. 1972. STUDIES ON THE BIOLOGY OF THE CALIFORNIA SEA LION AND THE NORTHERN ELEPHANT SEAL ON SAN NICHOLAS ISLAND, CALIFORNIA. PH.D. THESIS, UNIV. CALIF., LOS ANGELES. DISS. ABSTR. INTERNATL. 33(7):3389-B.
- RESULTS OF STUDIES CONDUCTED FROM AUGUST 1968 TO AUGUST 1971 ARE PRESENTED. INCLUDES YEARLY PEAKS OF CALIFORNIA SEA LIONS WITH REFERENCE TO SEX AND AGE COMPOSITIONS. NOTES PREMATURE PUP COUNTS. ANALYZES AERIAL SURVEY FOR 1964 (ODELL, 1971). (M,P,R)
28. ODELL, D.K. 1975. ABUNDANCE OF CALIFORNIA SEA LIONS ON SAN NICHOLAS ISLAND, CALIFORNIA. J. WILDL. MANAGE. 39(4): 729-736.
- SEASONAL CHANGES IN NUMBERS AND STRUCTURE OF SEA LIONS WERE STUDIED BETWEEN AUGUST 1968 AND AUGUST 1971. DURING THIS PERIOD 35 CENSUSES WERE TAKEN AT MONTHLY INTERVALS. DATA INCLUDES POPULATION ESTIMATES, FREQUENCY OF ADULTS AND CALVES, A GROWTH CURVE FOR THE POPULATION, AND A BRIEF NOTE ON MORTALITY. (M,P,R)
29. ODELL, D.K. 1975. BREEDING BIOLOGY OF THE CALIFORNIA SEA LION, ZALOPHUS CALIFORNIANUS. PP. 374-378. IN (RONALD, K. AND A.W. MANSFIELD, EDS.), BIOLOGY OF THE SEAL. INT. COUNC. EXPLOR. SEA, (I.C.E.S.), RAPP. & P.-V. REUN., 169.
- PRESENTS RESULTS OF STUDIES CONDUCTED ON SAN NICHOLAS ISLAND FROM AUGUST 1968 TO AUGUST 1971. INCLUDES DATA ON ANNUAL POPULATION PEAKS, BREEDING SEASON, PUPPING, TERRITORIALITY, AND COPULATION. (D,P,R)
30. ODEMAR, M. 1978. MARINE MAMMALS/FISHERIES INTERACTIONS. CALIF. DEPT. FISH & GAME, SACRAMENTO, CALIF. (UNPUBL. MEMOS).
- DESCRIBES CONFLICTS BETWEEN CALIFORNIA SEA LIONS AND GILL AND TRAMMEL NETTERS FOR WHITE SEA BASS, CALIFORNIA HALIBUT, AND VARIOUS SHARKS. INCLUDES CONFLICTS BETWEEN SEA LIONS AND LOBSTER FISHERMAN, PURSE-SEINERS FOR MACHEREL AND SQUID, AND SALMON TROLLERS. (F)
31. OLIPHANT, M.S. 1963. FLIGHT REPORT 63-12 PELAGIC FISH. CALIF. DEPT. FISH & GAME, MARINE RESOURCE OPERATIONS, CALIF. STATE FISH. LAB., TERMINAL IS., CALIF.

ZALOPHUS

- DURING AERIAL SURVEY OF PELAGIC FISH SCHOOLS IN DECEMBER 1963, SEA LIONS WERE SIGHTED OFF PT. LA JOLLA, PT. SAN LUIS, AND IN MONTEREY BAY. INCLUDES MAP OF SIGHTINGS. SEA LIONS WERE NOT IDENTIFIED AS TO GENUS. (D)
532. ORR, R.T. AND T.C. POULTER. 1965. THE PINNIPED POPULATION OF ANO NUEVO ISLAND, CALIFORNIA. CALIF. ACAD. SCI., PROC., SER. 4, 32(13):377-404.
- RESULTS OF STUDIES CONDUCTED FROM MAY 1961 TO MAY 1964 ARE PRESENTED. DATA FOR THE CALIFORNIA SEA LION INCLUDES ANNUAL POPULATION PEAKS, TOTAL POPULATION SIZE, AND SEX AND AGE COMPOSITIONS. (D,P)
533. ORR, R.T., J. SCHOENWALD, AND K.W. KENYON. 1970. THE CALIFORNIA SEA LION: SKULL GROWTH AND A COMPARISON OF TWO POPULATIONS. CALIF. ACAD. SCI., PROC., SER 4, 37:381-394.
- CONTAINS AN ANALYSIS OF ZALOPHUS SKULLS FROM GULF OF CALIFORNIA AND PACIFIC COAST POPULATIONS. NO SIGNIFICANT DIFFERENCES WERE FOUND. (D)
534. PARRISH, R. AND C. LANCE. 1970. ZALOPHUS - LOLIGO. UNPUBLISHED MANUSCRIPT.
- NOT SEEN.
535. PAULBITSKI, P.A. 1974. PINNIPEDS OBSERVED IN THE RIVERS OF NORTHERN CALIFORNIA. CALIF. FISH & GAME 60(1):48-49.
- MENTIONS THAT IN MAY 1973 A MALE CALIFORNIA SEA LION WAS NETTED BY A FISHERMAN IN THE MOKELUMNE RIVER. (D,F)
536. PETERSON, R.S. 1968. OBSERVATIONS OF SEA LIONS ON LION ROCK, SAN LUIS OBISPO COUNTY, CALIFORNIA, 1968. UNIV. CALIF., SANTA CRUZ. 2 P. (UNPUBL. REP.).
- CONTAINS CENSUS DATA COLLECTED ON SEPTEMBER 1, 1968. APPROXIMATELY 1300 ZALOPHUS WERE OBSERVED. CENSUSES WERE CONDUCTED BETWEEN NOON AND 1400 HOURS ON A BRIGHT, SUNNY DAY. MENTIONS THAT THE 1300 ZALOPHUS COUNTED AT MIDDAY REPRESENTS ONLY ABOUT 1/8 OF THE POPULATION ON LAND AT NIGHT. IF 10,000 ZALOPHUS DO LAND AT LION ROCK, AS SEEM LIKELY, THIS LOCATION IS ONE OF THE MAJOR HAULING GROUNDS FOR THIS GENUS. (D,P)
537. PETERSON, R.S. 1968. OBSERVATIONS OF SEA LIONS ON PIEDRAS BLANCAS, 1968. UNIV. CALIF., SANTA CRUZ. 3 P. (UNPUBL. REP.).

ZALOPHUS

CONTAINS CENSUS DATA FOR ZALOPHUS ON SEVERAL ROCKS OFF THE COAST OF NORTHERN SAN LUIS OBISPO COUNTY IN JUNE AND JULY 1968. COUNTS WERE MADE ACCORDING TO SEX WHEN POSSIBLE. (D,P)

538. PETERSON, R.S. AND G.A. BARTHOLOMEW. 1967. THE NATURAL HISTORY AND BEHAVIOR OF THE CALIFORNIA SEA LION. AM. SOC. MAMMAL., SPEC. PUBL. 1, 79 P.

DISCUSSES IN DETAIL REPRODUCTIVE AND NON-REPRODUCTIVE BEHAVIOR. PAGES 46-49 INCLUDE AGE AND SEX COMPOSITIONS ON SAN NICHOLAS ISLAND DURING AND AFTER THE 1965 BREEDING SEASON NOTING THE NUMBER OF PUPS PRESENT. MENTIONS MORTALITY ON LAND. (M,P,R)

539. PETERSON, R.S., R.L. GENTRY, AND B.J. LeBOEUF. 1968. INVESTIGATIONS OF PINNIPEDS ON SAN MIGUEL AND SAN NICHOLAS ISLANDS, FEBRUARY - MARCH, 1968. UNIV. CALIF., SANTA CRUZ. MANUSCR.

NOT SEEN. SUPPOSED TO INCLUDE CENSUSES OF CALIFORNIA SEA LIONS.

540. PETERSON, R.S. AND B.J. LeBOEUF. 1969. POPULATION STUDIES OF SEALS AND SEA LIONS. TRANS. N. AM. WILDL. NAT. RESOUR. CONF. 34:74-79.

BRIEFLY DISCUSSES RESULTS OBTAINED ON FARALLON, ANO NUEVO, SAN MIGUEL, SAN NICHOLAS, AND GUADALUPE ISLANDS. FOR THE CALIFORNIA SEA LION INCLUDES POPULATION SIZE, RATE OF CHANGE OF POPULATIONS, AND MIGRATORY PATTERNS. (D,P)

541. PETERSON, R.S. AND B.J. LeBOEUF. 1969. REPORT OF AN EXPEDITION TO SAN MIGUEL ISLAND, 25-28 MARCH, 1969. UNIV. CALIF., SANTA CRUZ. 10 P. (UNPUBL. REP.).

A TOTAL OF 7795 ZALOPHUS WERE COUNTED DURING A CENSUS MADE ON MARCH 27, 1969. NOTES THAT 26 DEAD ZALOPHUS WERE COUNTED IN THE POINT BENNETT AREA. (M,P)

542. PETERSON, R.S. AND G.V. MOREJOHN. UNPUBLISHED PINNIPED CENSUS. MOSS LANDING MARINE LAB., MOSS LANDING, CALIF.

NOT SEEN. CENSUS DATA WAS COLLECTED IN CALIFORNIA IN 1967-1968 AND PRIMARILY COVERED ZALOPHUS.

543. PIEROTTI, R.J., D.G. AINLEY, T.J. LEWIS, AND M.C. COULTER. 1977. BIRTH OF A CALIFORNIA SEA LION ON SOUTHEAST FARALLON ISLAND. CALIF. FISH & GAME 63(1):64-66.

ZALOPHUS

DISCUSSES DISTRIBUTION ALONG THE CALIFORNIA COAST. NOTES THE SIGNIFICANCE OF THE BIRTH OF A PUP ON THE FARALLONS BECAUSE IT EXTENDS THE BREEDING RANGE BY 300 KM AND IT IS THE MOST NORTHERLY RECORD OF A LIVE FEMALE. (D)

544. RICE, D.W. 1963. THE WHALE MARKING CRUISE OF THE SIOUX CITY OFF CALIFORNIA AND BAJA CALIFORNIA. NORSK HVAL-TID. 52(6): 153-160.

CONTAINS SIGHTING AND CENSUS DATA FOR CALIFORNIA SEA LIONS IN NOVEMBER AND DECEMBER 1962. ISLANDS SURVEYED INCLUDE SANTA BARBARA, SANTA CATALINA, ISLA DE AFUERA, AND ANO NUEVO. INCLUDES MAP OF CRUISE TRACK AND POSITIONS OF ANIMALS SIGHTED AT SEA. (D,E,P)

545. RICE, D.W., K.W. KENYON, AND D. LLUCH B. 1965. PINNIPED POPULATIONS AT ISLAS GUADALUPE, SAN BENITO, AND CEDROS, BAJA CALIFORNIA, IN 1965. SAN DIEGO SOC. NAT. HIST., TRANS. 14(7):73-84.

LISTS CENSUS RESULTS MADE BETWEEN JANUARY 28 AND FEBRUARY 3, 1965. REPORTS 585 ZALOPHUS FOUND ON ISLA GUADALUPE, 7200 ON SAN BENITO, AND 8400 ON CEDROS ISLAND. SUGGESTS THAT THIS CENSUS MAY BE PARTICULARLY USEFUL FOR DETERMINING POPULATION CHANGE WHEN COMPARED TO THE CENSUS MADE BY BARTHOLOMEW AND HUBBS IN 1950 AT EXACTLY THE SAME TIME OF YEAR. SEE BARTHOLOMEW AND HUBBS (1952). (D,P)

546. RIPLEY, W.E., K.W. COX, AND J.L. BAXTER. 1962. CALIFORNIA SEA LION CENSUS FOR 1958, 1960 AND 1961. CALIF. FISH & GAME 48(4):228-231.

CONTAINS CALIFORNIA SEA LION CENSUSES OF ROOKERIES AND HAULING OUT GROUNDS WITH A COMPARISON TO DISTRIBUTION IN PREVIOUS YEARS. MENTIONS THAT SINCE CENSUSES HAVE STARTED, THE PEAK OF ABUNDANCE IN SOUTHERN CALIFORNIA WAS IN 1961. (D,P)

547. ROWLEY, J. 1929. LIFE HISTORY OF THE SEA LIONS ON THE CALIFORNIA COAST. J. MAMMAL. 10(1):1-36.

DISCUSSES HISTORICAL DISTRIBUTION AND POPULATION SIZE OF CALIFORNIA SEA LIONS. BRIEFLY MENTIONS IMPACT ON FISHERIES. INCLUDES MAP OF ROOKERIES. (D,F,P)

548. SCHEFFER, V.B. 1958. SEALS, SEA LIONS, AND WALRUSES. A REVIEW OF THE PINNIPEDIA. STANFORD, CALIF.: STANFORD UNIV. PRESS. 179 P.

ZALOPHUS

PAGES 60-61 DISCUSS OVERALL RANGE AND POPULATION SIZE OF THE CALIF- (D,P)
ORNIA SEA LION. INCLUDES DISTRIBUTION MAP ON PAGE 58.

549. SCHEFFER, V.B. AND J.A. NEFF. 1948. FOOD OF CALIFORNIA SEA
LIONS. J. MAMMAL. 29(1):67-68.

STUDIES CONDUCTED ON FOUR SEA LIONS FROM CALIFORNIA. TWO OF THE (D)
ANIMALS WERE SHOT ON SANTA BARBARA ISLAND AND TWO WERE FOUND DEAD
ON THE BEACH IN LA JOLLA.

550. SIMPSON, J.G. AND W.G. GILMARTIN. 1970. AN INVESTIGATION ON
ELEPHANT SEAL AND SEA LION MORTALITY ON SAN MIGUEL ISLAND.
BIOSCIENCE 20(5):289.

NOTES SIGHTINGS OF CALIFORNIA SEA LIONS DURING A FOLLOW-UP STUDY (D)
ON THE EFFECTS OF THE SANTA BARBARA OIL SPILL.

551. SMITH, A.W., R.J. BROWN, D.E. SKILLING, AND R.L. DeLONG. 1974.
LEPTOSPIRA POMONA AND REPRODUCTIVE FAILURE IN CALIFORNIA
SEA LIONS. J. AM. VET. MED. ASSOC. 165(11):996-998.

SUGGESTS LEPTOSPIRA IS ONE AGENT GIVING RISE TO ABORTIONS IN (M,R)
ZALOPHUS.

552. SMITH, H.M. 1904. REPORT ON THE INQUIRY RESPECTING FOOD FISHES
AND THE FISHING GROUNDS. U.S. BUR. FISH., REP. (1902):
111-119.

DISCUSSES CALIFORNIA SEA LION/FISHERY INTERACTIONS. (F)

553. SMITH, P.E. 1976. AN EXPLORATION OF THE IMPORTANCE OF PREDATION
ON NORTHERN ANCHOVY BY FISH, MAMMALS, INVERTEBRATES AND
BIRDS. U.S. DEPT. COMMER., NOAA(NMFS), SOUTHWEST FISHERIES
CENTER, LA JOLLA, CALIF. SWFC ADMIN. REP. LJ-76.

PRESENTS DATA ON THE LOCAL DENSITY AND FEEDING RATES OF ZALOPHUS (E,F)
IN THE LOS ANGELES BIGHT AREA. THE CALIFORNIA SEA LION MAY BE
AN IMPORTANT PREDATOR ON NORTHERN ANCHOVY. IF THE POPULATION
IS REPRESENTED AS 100,000 90 KG ANIMALS EACH OF WHICH CONSUMES
7.5 KG/DAY, THEN THE QUARTERLY RATE OF CONSUMPTION IS ROUGHLY
 6.85×10^4 TONS.

554. STARKS, E.C. 1918. THE SEA LIONS OF CALIFORNIA. AM. MUS. J.
18(3):226-237.

CONTAINS THE HISTORY OF SEA LIONS IN CALIFORNIA, ESPECIALLY AT (D,P)
ANO NUEVO ISLAND.

ZALOPHUS

555. U.S. DEPARTMENT OF COMMERCE. 1978. REPORT OF THE SECRETARY OF COMMERCE ON ADMINISTRATION OF THE MARINE MAMMAL PROTECTION ACT OF 1972. ANNUAL REPORT, APRIL 1, 1977 TO MARCH 31, 1978. PREPARED BY NOAA/NMFS. 183 P.

PAGES 41-44 DISCUSS OVERALL DISTRIBUTION, ABUNDANCE, AND GENERAL BIOLOGY OF CALIFORNIA SEA LIONS.

(D,P)

556. U.S. GEOLOGICAL SURVEY. 1976. MARINE MAMMALS. PP 303-320. IN FINAL ENVIRONMENTAL STATEMENT OIL AND GAS DEVELOPMENT IN THE SANTA BARBARA CHANNEL OUTER CONTINENTAL SHELF OFF CALIFORNIA. VOL. 2 OF 3. U.S. DEPT. INTER.

PAGE 305 CONTAINS THE CALIFORNIA SEA LION POPULATION ESTIMATE OFF THE CALIFORNIA COAST. PAGE 318 CONTAINS A CHART SHOWING THE APPROXIMATE TIMES OF CALIFORNIA SEA LION ACTIVITY ON THE SANTA BARBARA CHANNEL ISLANDS.

(P)

557. WEBBER, M. 1978. UNPUBLISHED ZALOPHUS DATA. CALIF. MAR. MAM. CENTER, MARIN HEADLANDS RANGER STATION, FORT CRONKITE, CALIF.

MARK WEBBER STARTED A ZALOPHUS CENSUS OF SEAL ROCKS, SAN FRANCISCO, IN THE FALL OF 1978. COUNTS WILL BE MADE TWICE A WEEK THROUGH THE SUMMER OF 1979 WITH REFERENCE TO AGE CLASSES.

(P)

558. WOODHOUSE, C.D. AND P.W. COLLINS. 1977. MORTALITY IN ZALOPHUS CALIFORNIANUS AS NOTED IN SANTA BARBARA AND VENTURA COUNTIES, CALIFORNIA (ABSTRACT). PROCEEDINGS OF THE SECOND CONFERENCE ON THE BIOLOGY OF MARINE MAMMALS. SAN DIEGO, CALIF., DEC. 12-15, 1977.

BRIEF DISCUSSION ON THE RECORDING AND SALVAGING OF MARINE MAMMAL SPECIES THAT STRAND AND DIE ALONG THE COAST. NOTES THE NUMBER OF CALIFORNIA SEA LION STRANDINGS SINCE 1974 AND THE FREQUENCY OF STRANDINGS ACCORDING TO TIME OF YEAR AND SEX.

(D,M)

559. WOODHOUSE, C.D., P.W. COLLINS, AND F.G. HOCHBERG. 1977. MARINE MAMMAL STRANDINGS IN THE SANTA BARBARA REGION FROM 1975 TO 1977. PP. 4-5. IN: PRESENTATION ABSTR., MARINE MAMMAL STRANDING WORKWHOP. ATHENS, GEORGIA, AUG. 10-12, 1977. (WILL BE PUBLISHED BY NTIS).

MENTIONS THE AVERAGE ANNUAL NUMBER OF CALIFORNIA SEA LION STRANDINGS.

(D,M)

II. CETACEA

COMPREHENSIVE

560. AD HOC GROUP IV. 1976. OUTLINE FOR CASE STUDY - CALIFORNIA CURRENT ECOSYSTEM. ADVISORY COMM. ON MAR. RESOUR. RES. U.N., F.A.O., ACMRR/MM/SC/5-SUPPL. 3. 13 P. BERGEN, NORWAY, 31 AUG. - 9 SEPT. 1976.

STATES THAT 19 SPECIES OF SMALL CETACEANS ARE KNOWN FROM THE CALIFORNIA CURRENT. BRIEFLY DISCUSSES INTERACTIONS BETWEEN MARINE MAMMAL SPECIES AND INTERACTIONS WITH OTHER PRESENT OR POTENTIAL RESOURCE ANIMALS. MENTIONS THAT COLLISIONS BETWEEN VESSELS AND MARINE MAMMALS OCCUR WITH SOME FREQUENCY IN THE COASTAL WATERS OF CALIFORNIA. INCLUDES TURSIOPS, BERARDIUS, MESOPLDON, ZIPHIUS, KOGIA, ORCINUS, GLOBICEPHALA, LAGENORHYNCHUS, GRAMPUS, DELPHINUS, LISSODELPHIS, PHOCOENOIDES, STENO, AND PSEUDORCA. (D,F)

561. ASDELL, S.A. 1964. CETACEA. PP 410-424. IN PATTERNS OF MAMMALIAN REPRODUCTION. LONDON: CONSTABLE & CO. LTD., SEC. ED.

VERY BRIEF DISCUSSION ON REPRODUCTIVE PARAMETERS SUCH AS LENGTH OF GESTATION, TIME OF BREEDING AND BIRTH, NUMBER OF YOUNG BORN, AND PREGNANCY RATES FOR SOME. INCLUDES MESOPLDON, BERARDIUS, KOGIA, ORCINUS, TURSIOPS, LAGENORHYNCHUS, PSEUDORCA, GLOBICEPHALA, AND DELPHINUS. (R)

562. BONNOT, P. 1929. THE WHALES OF CALIFORNIA. CALIF. FISH & GAME 15(3):203-215.

GIVES A BRIEF DESCRIPTION OF CETACEANS WHICH CAN BE INCLUDED IN THE CALIFORNIA FAUNA BASED ON THE LITERATURE AND FIELD OBSERVATIONS. INCLUDES DELPHINUS, BERARDIUS, TURSIOPS, GRAMPUS, ORCINUS, LAGENORHYNCHUS, AND LISSODELPHIS. (D)

563. BROWN, D. UNPUBLISHED CETACEAN OBSERVATIONS. PT. REYES NATL. SEASHORE, PT. REYES, CALIF.

AN ON-GOING OBSERVATION FILE WAS STARTED IN 1966. INCLUDES OBSERVATIONS OF STRANDED ANIMALS AND INCIDENTAL SIGHTINGS. INFORMATION INCLUDES DATE OF STRANDING OR SIGHTING, TIME, LOCALITY, NUMBER OF ANIMALS, PHYSICAL CONDITION, AND MISCELLANEOUS NOTES. FILES CONTAIN ONE OR MORE REPORTS FOR THE FOLLOWING: DELPHINUS, ORCINUS, LAGENORHYNCHUS, LISSODELPHIS, MESOPLDON AND PHOCOENOIDES. (D)

COMPREHENSIVE

564. BROWN, D.H. AND K.S. NORRIS. 1956. OBSERVATIONS OF CAPTIVE AND WILD CETACEANS. J. MAMMAL. 37(3):311-326.

CONTAINS SIGHTINGS OFF SOUTHERN CALIFORNIA WITH REFERENCE TO STAGE OF GROWTH AND SCHOOL SIZE FROM MARCH 1954 TO SEPTEMBER 1955. DISCUSSES SEASONAL OCCURRENCE, CAPTIVE BEHAVIOR, AND MATING. INCLUDES TURSIOPS, DELPHINUS, PHOCOENOIDES, ORCINUS, GLOBICEPHALA, AND LAGENORHYNCHUS. (D)

565. BROWN, S.G. 1965. RELATION BETWEEN STRANDING MORTALITY AND POPULATION ABUNDANCE OF SMALLER CETACEA IN THE NORTHEAST ATLANTIC OCEAN. J. FISH RES. BD. CAN. 32(7):1095-1099.

DISCUSSES THE POSSIBILITY THAT THE FREQUENCY OF STRANDING MAY PROVIDE SOME INFORMATION ABOUT THE RELATIVE ABUNDANCE OF DIFFERENT SPECIES.

566. BROWN, V. 1976. CETACEA. PP. 101-227. IN SEA MAMMALS AND REPTILES OF THE PACIFIC COAST. LONDON: COLLIER MACMILLIAN PUBLISHERS.

BRIEF DISCUSSION OF GENERAL BIOLOGY, RANGE, HABITATS, FOOD, AND LOCOMOTION. INCLUDES BERARDIUS, MESOPLDON, ZIPHIUS, KOGIA, DELPHINUS, TURSIOPS, LISSODELPHIS, LAGENORHYNCHUS, GRAMPUS, ORCINUS, PSEUDORCA, GLOBICEPHALA, AND PHOCOENOIDES. (D)

567. BROWNELL, R.L. 1964. OBSERVATIONS OF ODONTOCETES IN CENTRAL CALIFORNIA WATERS. NORSK HVAL-TID. 53(3):60-66.

NOTES SIGHTINGS WITH REFERENCE TO OVERALL RANGE AND ABUNDANCE. INCLUDES BERARDIUS, DELPHINUS, GLOBICEPHALA, LAGENORHYNCHUS, LISSODELPHIS, ORCINUS, AND PHOCOENOIDES. (D)

568. BROWNELL, R.L. 1971. WHALES, DOLPHINS AND OIL POLLUTION. VOL I: 255-276. IN (STRAUGHN, D., ED.), BIOLOGICAL AND OCEANOGRAPHICAL SURVEY OF THE SANTA BARBARA OIL SPILL, 1969-1970. UNIV. SO. CALIF., ALLAN HANCOCK FOUNDATION.

DISCUSSES WHALE AND DOLPHIN STRANDINGS REPORTED ALONG CALIFORNIA BEACHES FROM JANUARY 28 THROUGH MARCH 31, 1969. INCLUDES ONE LAGENORHYNCHUS, FIVE DELPHINUS, AND ONE GLOBICEPHALA. STRANDING DATA INCLUDES DATE, LOCALE, SIZE, AND SEX. (D)

569. BRUYNS, W.F.J.M. 1971. FIELD GUIDE OF WHALES AND DOLPHINS. UITGEVERIJ/N.V. UITGEVERIJ V.H. c.a. MEES. ZIESENISKADE 14, AMSTERDAM, NETHERLANDS 258 P.

COMPREHENSIVE

BRIEF DISCUSSION ON OVERALL DISTRIBUTION, MIGRATION, MORPHOLOGY, (D)
FOOD, BIOTOPE, AND CALVING TIME FOR CETACEANS OF THE WORLD.
CONTAINS A DISTRIBUTION MAP FOR EACH SPECIES AND A DOLPHIN
DENSITY CHART FOR SCHOOLS OF DOLPHIN SIGHTED FROM 1952-1968.
INCLUDES PHOCOENOIDES, LAGENORHYNCHUS, DELPHINUS, LISSODELPHIS,
STENO, TURSIOPS, GRAMPUS, GLOBICEPHALA, PSEUDORCA, ORCINUS,
AND MESOPLODON.

570. BRYDEN, M.M. 1972. GROWTH AND DEVELOPMENT OF MARINE MAMMALS.
PP. 1-79. IN (HARRISON, R.J., ED.), FUNCTIONAL ANATOMY
OF MARINE MAMMALS. VOL. 1. LONDON AND NEW YORK: ACADEMIC
PRESS.

DISCUSSES LINEAR GROWTH IN CETACEANS BASED ON BIRTH, LACTATION, (R)
WEANING, SEXUAL MATURITY, AND PHYSICAL MATURITY. INCLUDES MESO-
PLODON, ZIPHIUS, DELPHINUS, TURSIOPS, ORCINUS, BERARDIUS, AND
GLOBICEPHALA.

571. BUREAU OF LAND MANAGEMENT. 1975. IMPACT ON MARINE MAMMALS.
PP. 174-185. IN FINAL ENVIRONMENTAL STATEMENT PROPOSED 1975
OUTER CONTINENTAL SHELF OIL AND GAS GENERAL LEASE SALE OFFSHORE
SOUTHERN CALIFORNIA. VOL 2 OF 5. U.S. DEPT. INTER.

DISCUSSES THE EFFECT THE DEVELOPMENT OF THE OUTER CONTINENTAL SHELF (D)
AREA COULD HAVE ON 28 SPECIES OF MARINE MAMMALS. ALSO MENTIONS
THE POSSIBLE EFFECT OF A MAJOR OIL SPILL. NOTES THAT A LARGE OIL
SPILL COULD CAUSE RESPIRATORY FAILURE IN CETACEANS.

572. CALIFORNIA COOPERATIVE FISHERIES INVESTIGATIONS (CALCOFI). DATA
REPORTS 1-26. STATE OF CALIF., DEPT. FISH & GAME, MARINE
RESEARCH COMM., 1965-1877.

DURING PELAGIC FISH SURVEYS ALONG THE CALIFORNIA AND BAJA CALIF- (D)
ORNIA COASTS, MARINE MAMMAL SIGHTINGS WERE RECORDED. SPECIES
CAPTURED, DETECTED, OR OBSERVED AT A CRUISE STATION ARE EXPRESSED
IN A NUMERICAL CODE. THE SCIENTIFIC AND COMMON NAMES CORRES-
PONDING TO EACH CODE ARE LISTED IN APPENDIX 1 OF EACH DATA RE-
PORT. NOT ALL CRUISES HAD MARINE MAMMAL SIGHTINGS. CETACEAN
SPECIES SIGHTED AT VARIOUS TIMES INCLUDED LAGENORHYNCHUS, PHOCOE-
NOIDES, GLOBICEPHALA, DELPHINUS, ORCINUS, AND PSEUDORCA.

573. CALIFORNIA MARINE MAMMAL CENTER. UNPUBLISHED CETACEAN STRANDING
DATA. MARIN HEADLANDS RANGER STATION, FORT CRONKITE, CALIF.

THE CENTER HAS BEEN IN OPERATION SINCE MAY 1975. TO DATE (10/78) (D)
THERE HAS BEEN NINE RECORDED CETACEAN STRANDINGS COMPRISED OF THE
FOLLOWING: 1 MESOPLODON, 2 PHOCOENOIDES, 4 PHOCOENA, 1 ORCINUS,

COMPREHENSIVE

AND 1 GLOBICEPHALA. DATA INCLUDES DATE OF STRANDING, LOCATION, CONDITION OF ANIMAL, AND WHETHER IT WAS FOUND DEAD, ALIVE OR EVENTUALLY RELEASED AFTER TREATMENT. THREE OF THE ANIMALS BEACHED ALIVE.

574. DAILEY, M.D. 1974. MARINE MAMMALS. REPRINTED FROM A SUMMARY OF KNOWLEDGE OF THE SOUTHERN CALIFORNIA COASTAL ZONE AND OFFSHORE AREAS. SO. CALIF. OCEAN STUDIES CONSORTIUM. B.L.M. CONTRACT NO. 08550-CT4-1. 37 P.

PAGES 2-16 INCLUDE INFORMATION ON THE RANGE, STUDY AREA SIGHTINGS, POPULATION SIZE, LIFE HISTORY, AND DISEASES OF CETACEANS. INCLUDES PSEUDORCA, ORCINUS, GLOBICEPHALA, MESOPLDON, ZIPHIUS, KOGIA, TURSIOPS, DELPHINUS, LAGENORHYNCHUS, LISSODELPHIS, AND PHOCOENOIDES. (D,P)

575. DAILEY, M.D., W.A. WALKER, R.L. BROWNELL, AND D.F. COWAN. 1977. INDIVIDUAL STRANDINGS OF SMALL CETACEANS IN LOS ANGELES COUNTY, CALIFORNIA. P. 12. IN PRESENTATION ABSTR., MARINE MAMMAL STRANDING WORKSHOP. ATHENS, GEORGIA, AUG. 10-12, 1977. (WILL BE PUBLISHED BY NTIS).

DURING THE FOUR YEAR PERIOD 1970-1973, DETAILED DATA ON 81 INDIVIDUAL STRANDINGS OF SMALL CETACEANS HAVE BEEN ASSEMBLED. THIS STUDY ON SMALL CETACEAN STRANDINGS IS THE MOST COMPREHENSIVE PERFORMED IN THE STUDY AREA. ANALYSIS OF DATA AND FINAL REPORT WILL FOCUS ON STRANDING FREQUENCY, FOOD HABITS, SPECIES OCCURRENCES, AGE GROUPS, HISTOPATHOLOGY, AND SPECIFIC IDENTIFICATION OF PARASITES. INCLUDES DELPHINUS, LAGENORHYNCHUS, LISSODELPHIS, TURSIOPS, GLOBICEPHALA, AND PHOCOENOIDES. (D)

576. DAUGHTERY, A.E. 1972. ORDER CETACEA. PP. 10-55. IN MARINE MAMMALS OF CALIFORNIA. CALIF. DEPT. FISH & GAME, SEC. REV.

CONTAINS A BRIEF DISCUSSION ON THE OVERALL DISTRIBUTION, SIGHTINGS, POPULATION SIZE, AND GENERAL BIOLOGY OF CETACEANS. INCLUDES DELPHINUS, GLOBICEPHALA, GRAMPUS, LAGENORHYNCHUS, LISSODELPHIS, ORCINUS, PHOCOENOIDES, PSEUDORCA, STENO, TURSIOPS, KOGIA, BERARDIUS, MESOPLDON, AND ZIPHIUS. (D)

577. FISCUS, C.H. 1977. A SUMMARY OF INFORMATION ON THE PACIFIC HAKE, MERLUCCIIUS PRODUCTUS, THE FISHERY, AND MARINE MAMMALS. MARINE MAMMAL DIVISION, NORTHWEST ALASKA FISHERIES CENTER FOR THE MARINE MAMMAL/FISHERIES WORKSHOP, 19-20 DEC. 1977. SEATTLE, WA. 25 P.

COMPREHENSIVE

DISCUSSES THE BIOLOGY, FEEDING HABITS, RANGE, POPULATION SIZE, AND COMMERCIAL FISHERY FOR HAKE. INCLUDES A DISCUSSION ON MARINE MAMMALS KNOWN TO OCCUR IN SOME PORTION OF THE RANGE OF PACIFIC HAKE AND THEIR RELATIONSHIP TO HAKE. CHART INCLUDES ESTIMATED POPULATION SIZE OF MARINE MAMMALS IN HAKE RANGE AND WHETHER THEY COMPETE WITH OR PREY ON HAKE. CETACEANS KNOWN TO PREY ON PACIFIC HAKE ARE DELPHINUS, LAGENORHYNCHUS, LISSODELPHIS, AND PHOCOENOIDES. (D,F,P)

578. FISCUS, C.H. 1978. MARINE MAMMAL-SALMONID INTERACTIONS: A REVIEW. MAR. MAM. DIV., NORTHWEST AND ALASKA FISHERIES CENTER, PREPARED FOR U.S.-U.S.S.R. SYMP. ON SALMONID ECOSYSTEMS OF THE NORTH PACIFIC OCEAN, 5-10 MAY 1978, NEWPORT, OR. 31 P.

DISCUSSES INTERACTIONS BETWEEN CETACEANS AND SALMONIDS IN THE NORTH PACIFIC OCEAN. KNOWN SALMONID PREDATORS INCLUDE THE KILLER WHALE IN NEARSHORE AND ESTUARINE WATERS, AND THE PACIFIC WHITE-SIDED DOLPHIN AND DALL PORPOISE IN OFFSHORE WATERS. ALSO INCLUDES SOME INFORMATION ON THE FALSE KILLER WHALE AND LARGER CETACEANS. MENTIONS THAT DAMAGE BY MARINE MAMMALS TO CAUGHT FISH IN THE OFFSHORE SALMON TROLL FISHERY IS CONSIDERED MINIMAL OFF CALIFORNIA. (F)

579. FISCUS, C.H. AND K. NIGGOL. 1965. OBSERVATIONS OF CETACEANS OFF CALIFORNIA, OREGON, AND WASHINGTON. U.S. FISH WILDL. SERV., SPEC. SCI. REP. FISH. 498, 111 + 27.

DETAILED ACCOUNT OF SIGHTINGS INCLUDING NUMBER SEEN, LOCATION, AND DATE FROM 1958-1961. MAPS OF SIGHTINGS COVER DEPHINUS, GLOBICEPHALA, GRAMPUS, LAGENORHYNCHUS, LISSODELPHIS, ORCINUS, PHOCOENOIDES, AND PSEUDORCA. POSSIBLE SURVEY EFFORT MAY BE DERIVED FROM THIS DATA. (D,E)

580. FRASER, F.C. 1937. WHALES AND DOLPHINS. PP. 201-376. IN NORMAN J.R. AND F.C. FRASER), GIANT FISHES, WHALES AND DOLPHINS. LONDON: PUTNAM.

PROVIDES GENERAL INFORMATION ON MORPHOLOGY, FOOD HABITS, HABITAT, AND REPRODUCTION FOR A LARGE NUMBER OF CETACEAN SPECIES. INCLUDES DELPHINUS, GRAMPUS, LAGENORHYNCHUS, LISSODELPHIS, PHOCOENOIDES, STENO, TURSIOPS, KOGIA, BERARDIUS, ZIPHIUS, MESOPLDON, ORCINUS, AND PSEUDORCA. (R)

581. GREEN, K. 1978. ECOSYSTEM DESCRIPTION OF THE CALIFORNIA CURRENT. DRAFT FINAL REP., MARINE MAMMAL COMMISSION, CONTRACT NO. MM7AC-026. 79 P.

COMPREHENSIVE

CONTAINS INFORMATION ON THE SEASONAL AND GEOGRAPHIC VARIATIONS IN THE DISTRIBUTION OF CETACEANS IN THE CALIFORNIA CURRENT SYSTEM. INCLUDES CHARTS NOTING FEEDING HABITS AND ABUNDANCE ESTIMATES. DISCUSSES ESTIMATES OF POPULATION BIOMASS AND ANNUAL FOOD INTAKE FOR CETACEANS AND CONTAINS A CHART WITH THE ESTIMATED PROPORTIONS OF PREY GROUPS IN THE DIET OF CETACEANS. COVERS PHOCOENOIDES, GLOBICEPHALA, DELPHINUS, LAGENORHYNCHUS, ZIPHIUS, TURSIOPS, LISSODELPHIS, GRAMPUS, ORCINUS, PSEUDORCA, BERARDIUS, KOGIA, MESOPLONDON, AND STENO. (D,F,P)

582. GRINNEL, J. 1933. REVIEW OF THE RECENT MAMMAL FAUNA OF CALIFORNIA. UNIV. CALIF. PUBL. ZOOL. 40:71-234.

CONTAINS ORIGINAL DESCRIPTION, TYPE LOCALITY, SYNONYMS, AND RANGE FOR CETACEANS OF CALIFORNIA. INCLUDES DELPHINUS, TURSIOPS, LISSODELPHIS, LAGENORHYNCHUS, ORCINUS, GRAMPUS, GLOBICEPHALA, PHOCOENOIDES, AND BERARDIUS. (D)

583. HALL, E.R. AND K.R. KELSON. 1959. ORDER CETACEA-CETACEANS. PP. 806-841. IN THE MAMMALS OF NORTH AMERICA. VOL. II. NEW YORK: THE RONALD PRESS COMPANY.

DISCUSSES MORPHOLOGY AND RANGE OF CETACEANS. INCLUDES MESOPLONDON, ZIPHIUS, KOGIA, STENO, DELPHINUS, TURSIOPS, LISSODELPHIS, LAGENORHYNCHUS, GRAMPUS, ORCINUS, PSEUDORCA, GLOBICEPHALA, AND PHOCOENOIDES. (D)

584. HARRISON, R.J. 1969. REPRODUCTION AND REPRODUCTIVE ORGANS. PP. 253-295. IN (ANDERSON, H.T., ED.), THE BIOLOGY OF MARINE MAMMALS. NEW YORK AND LONDON: ACADEMIC PRESS.

DETAILED DISCUSSION OF MALE AND FEMALE REPRODUCTIVE ORGANS, MATING, PREGNANCY, PARTURITION, AND LACTATION. INCLUDES DELPHINUS, GRAMPUS, LAGENORHYNCHUS, TURSIOPS, BERARDIUS, KOGIA, ORCINUS, PSEUDORCA, AND GLOBICEPHALA. (R)

585. HARRISON, R.J., R.L. BROWNELL, AND R.C. BOICE. 1972. REPRODUCTION AND GONADAL APPEARANCES IN SOME ODONTOCETES. PP. 361-429. IN (HARRISON, R.J., ED.), FUNCTIONAL ANATOMY OF MARINE MAMMALS, VOL. I. LONDON AND NEW YORK: ACADEMIC PRESS.

DISCUSSES DETAILS OF REPRODUCTIVE PATTERNS AND GONADAL CHANGES IN THE SMALLER ODONTOCETES. INCLUDES TURSIOPS, KOGIA, ORCINUS, DELPHINUS, PSEUDORCA, GRAMPUS, LISSODELPHIS, LAGENORHYNCHUS, AND GLOBICEPHALA. (R)

COMPREHENSIVE

586. HUBBS, C.L. UNPUBLISHED CETACEAN DATA. SCRIPPS INST. OCEAN.,
LA JOLLA, CALIF.

DR. HUBBS HAS CETACEAN SIGHTING AND STRANDING DATA ON FILE FROM 1947 TO PRESENT. MOST OF THIS DATA IS IN ROUGH OR HANDWRITTEN FORM AND MAINLY COVERS SOUTHERN CALIFORNIA. INCLUDES ORCINUS, PSEUDORCA, ZIPHIUS, TURSIOPS, BERARDIUS, DELPHINUS, GLOBICEPHALA, GRAMPUS, KOGIA, MESOPLDON, AND LISSODELPHIS. HAS NOTES ON APPROXIMATELY 150 DEAD DELPHINUS FOUND FLOATING NEAR THE CORONADO ISLANDS IN AUGUST 1966. NOTES ON FILE INDICATE THE POSSIBILITY OF HUMAN INTERFERENCE. DR. HUBBS ALSO HAS NEWSPAPER CLIPPINGS DEALING WITH CETACEANS IN THE SOUTHERN CALIFORNIA AREA FROM 1947 - PRESENT. (D,F)

587. INGLES, L.G. 1965. ORDER CETACEA. PP. 310-333. IN MAMMALS OF THE UNITED STATES. STANFORD CALIF.: STANFORD UNIV. PRESS.

BRIEF DISCUSSION ON THE DISTRIBUTION AND GENERAL BIOLOGY OF CETACEANS FOUND ALONG THE COASTS OF CALIFORNIA, OREGON, AND WASHINGTON. INCLUDES BERARDIUS, MESOPLDON, ZIPHIUS, KOGIA, TURSIOPS, STENO, DELPHINUS, LISSODELPHIS, LAGENORHYNCHUS, PHOCOE- NOIDES, ORCINUS, GRAMPUS, PSEUDORCA, AND GLOBICEPHALA. (D)

588. LAEVAUSTU, T. AND F. FAVORITE. 1977. MINIMUM SUSTAINABLE BIO- MASSES OF MARINE ECOLOGICAL GROUPS OFF CENTRAL AND NORTHERN CALIFORNIA, OREGON, WASHINGTON, AND VANCOUVER ISLAND COASTS (A NUMERICAL EVALUATION OF LIVING MARINE RESOURCES OFF THE WEST COAST OF THE UNITED STATES). U.S. DEPT. COMMER., NOAA(NMFS), NORTHWEST AND ALASKA FISHERIES CENTER, SEATTLE, WA. 60 P.

DISCUSSES THE ADAPTATION OF AN ECOSYSTEMS MODEL TO DETERMINE THE STANDING STOCKS OF VARIOUS MARINE ECOLOGICAL GROUPS (WITH EMPHASIS ON FISHERIES), ALONG AND OFF THE CENTRAL AND NORTHERN CALIFORNIA COAST. THE COAST WAS DIVIDED INTO COMPUTATIONAL SUBAREAS AND FOR EACH AREA THE NUMBER OF TOOTHED AND BALEEN WHALES AND DOLPHINS AND PORPOISES WAS DETERMINED. DATA INCLUDES FOOD COMPOSITION AND CONSUMPTION BY CETACEANS AND CONTAINS CHARTS SHOWING THE CONSUMPTION OF SPECIFIC ECOLOGICAL GROUPS (SQUIDS, SARDINES, ETC.) IN 10^3 METRIC TONS PER YEAR. THE MAIN FOOD FOR TOOTHED WHALES IS FINFISH: THEIR CONSUMPTION BY TOOTHED WHALES AS COMPUTED BY THE MODEL IS MORE THAN FIVE-FOLD THE TOTAL U.S. CATCH OFF CALIFORNIA, OREGON, AND WASHINGTON. THEIR CONSUMPTION IS ALSO CONSIDERABLY HIGHER (NEARLY TWO-FOLD) THAN THE TOTAL COMMERCIAL CATCH (U.S. AND FOREIGN CATCH) IN THE REGION. (F)

COMPREHENSIVE

589. LAURS, M.R. AND ASSOC. 1972-1975. REPORT OF JOINT NATIONAL MARINE FISHERIES SERVICE - AMERICAN FISHERMAN'S RESEARCH FOUNDATION ALBACORE STUDIES CONDUCTED FROM 1971-1975. SPEC. PUBL., NOAA (NMFS), SOUTHWEST FISHERIES CENTER, LA JOLLA, CALIF.

FROM 1971-1975 MARINE MAMMAL WATCHES WERE MAINTAINED ABOARD 15 ALBACORE VESSELS. CETACEAN SIGHTINGS WERE RECORDED FROM MAY THROUGH SEPTEMBER AND COVERED THE AREA FROM 30° NORTH LATITUDE TO 45° NORTH LATITUDE. (D)

590. LEATHERWOOD, S. WHALE WATCH. NAVAL OCEANS SYSTEM CENTER (NOSC), SAN DIEGO, CALIF.

UNPUBLISHED DATA ON SIGHTINGS MADE BY NOSC PERSONNEL, SAN DIEGO SPORT FISHERMEN, AND OTHER MISCELLANEOUS SOURCES FROM THE LATE 1960's TO THE EARLY '70's. AREA OF SIGHTINGS EXTEND FROM IMPERIAL BEACH NORTH TO THE CHANNEL ISLANDS AND SANTA BARBARA. INCLUDES BERARDIUS, DELPHINUS, GLOBICEPHALA, LAGENORHYNCHUS, ORCINUS, PHOCOENOIDES, PSEUDORCA, STENO, AND TURSIOPS. (D)

591. LEATHERWOOD, S., W.E. EVANS, AND D.W. RICE. 1972. THE WHALES, DOLPHINS AND PORPOISES OF THE EASTERN NORTH PACIFIC: A GUIDE TO THEIR IDENTIFICATION IN THE WATER. NAVAL UNDER-SEA RESEARCH AND DEVELOPMENT CENTER, NUC TP 282. SAN DIEGO, CALIF. 175 P.

BRIEF DISCUSSION ON THE DESCRIPTION AND DISTRIBUTION OF CETACEA. INCLUDES BERARDIUS, ZIPHIUS, MESOPLDON, ORCINUS, GLOBICEPHALA, PSEUDORCA, GRAMPUS, DELPHINUS, LAGENORHYNCHUS, PHOCOENOIDES, STENO, TURSIOPS, KOGIA, AND LISSODELPHIS. (D)

592. LEATHERWOOD, S., G.E. LINGLE, J.D. HALL, AND W.E. EVANS. CETACEANS OF THE SOUTHERN CALIFORNIA CONTINENTAL BORDERLAND: RESULTS OF AERIAL AND SHIPBOARD SURVEYS 1968-1974. NAVAL OCEANS SYSTEMS CENTER (NOSC), SAN DIEGO, CALIF. (UNPUBL.).

RESULTS ARE AVAILABLE IN THE FORM OF A COMPUTER PRINT OUT AND INCLUDE DELPHINUS, LAGENORHYNCHUS, LISSODELPHIS, GLOBICEPHALA, PHOCOENOIDES, TURSIOPS, GRAMPUS, ORCINUS, PSEUDORCA, AND KOGIA. THERE WAS A DIFFERENCE IN THE SEASONAL ABUNDANCE OF CETACEANS AS COMPARED TO THE RESULTS OBTAINED BY (NORRIS, K.S., ETC., 1976). EFFORT FOR DENSITY ESTIMATION CAN BE OBTAINED FROM THE RESULTS. (D,E)

593. MARCUZZI, G. AND G. PILLERI. 1971. ON THE ZOOGEOGRAPHY OF CETACEA. PP. 101-170. IN (PILLERI, G., ED.), INVESTIGATIONS ON CETACEA. VOL 3. PART I. BERNE, SWITZERLAND.

COMPREHENSIVE

CONTAINS A DISCUSSION ON THE DISTRIBUTION OF CETACEANS WITH RANGE MAPS FOR EACH SPECIES. INCLUDES MESOPLODON, BERARDIUS, ZIPHIUS, KOGIA, STENO, DELPHINUS, GRAMPUS, TURSIOPS, LAGENORHYNCHUS, ORCINUS, PSEUDORCA, GLOBICEPHALA, LISSODELPHIS, AND PHOCOENOIDES. (D)

594. MARINE MAMMAL DIVISION. UNPUBLISHED CETACEAN SIGHTING DATA.
U.S. DEPT. COMMER., NOAA(NMFS), NORTHWEST AND ALASKA
FISHERIES CENTER, SEATTLE, WA.

THE MARINE MAMMAL DIVISION HAS AVAILABLE CETACEAN SIGHTING DATA OBTAINED DURING RESEARCH CRUISES IN CALIFORNIA WATERS SINCE 1958. SOME OF THIS DATA (1958-1976) IS AVAILABLE IN COMPUTER FORMAT AND SOME (1976-PRESENT) IS IN THE PROCESS OF BEING LOGGED INTO THE SYSTEM. DATA INCLUDES DATE OF SIGHTING, TIME, POSITION, SPECIES, AND NUMBER OF ANIMALS. MOST SIGHTINGS ARE INCIDENTAL AND NO EFFORT FOR DENSITY ESTIMATION CAN BE OBTAINED. INCLUDES PHOCOENOIDES, LAGENORHYNCHUS, LISSODELPHIS, TURSIOPS, DELPHINUS, GLOBICEPHALA, GRAMPUS, PSEUDORCA, ORCINUS, AND BERARDIUS. (D)

595. MARTIN, R.M. 1977. DOLPHINS AND WHALES. PP. 44-82. IN MAMMALS OF THE OCEANS. NEW YORK: G.P. PUTNAM'S SONS.

BRIEF DISCUSSION ON OVERALL DISTRIBUTION, STATUS, DESCRIPTION, FOOD HABITS, AND REPRODUCTION OF CETACEANS. INCLUDES KOGIA, DELPHINUS, TURSIOPS, ORCINUS, AND GLOBICEPHALA. (D)

596. MATE, B.R. UNPUBLISHED CETACEAN SIGHTINGS. MARINE SCIENCE CENTER, OREGON STATE UNIV., NEWPORT, OR.

APPROXIMATELY 300-600 OPPORTUNISTIC SIGHTINGS COMPRISING 150,000 INDIVIDUAL CETACEANS WERE RECORDED DURING THE AUGUST 1974 - AUGUST 1975 PINNIPED AERIAL SURVEY IN THE EASTERN PACIFIC. THE MAJORITY OF THE ANIMALS WERE IDENTIFIED AND APPROXIMATELY HALF OF ALL SIGHTINGS WERE BELOW 31° NORTH LATITUDE. MOST OF THIS DATA HAS YET TO BE REDUCED FROM SLIDES. INCLUDES BOTH LARGE AND SMALL CETACEANS. (D)

597. MILLER, G.S. AND R. KELLOG. 1955. LIST OF NORTH AMERICAN RECENT MAMMALS. U.S. NATL. MUS., BULL. 205, 954 P.

SUMMARIZES THE RESULTS OF TAXONOMIC STUDIES UP TO JANUARY 1953 AND INDICATES THE FORMS REPRESENTED IN THE COLLECTIONS OF THE U.S. NATIONAL MUSEUM. PAGES 650-699 COVER CETACEANS AND INCLUDES CLASSIFICATION, RANGE, AND TYPE LOCALITY BASED ON STRANDINGS. COVERS BERARDIUS, MESOPLODON, ZIPHIUS, KOGIA, STENO, DELPHINUS, TURSIOPS, LISSODELPHIS, LAGENORHYNCHUS, ORCINUS, GRAMPUS, PSEUDORCA, GLOBICEPHALA AND PHOCOENOIDES. (D)

COMPREHENSIVE

598. MITCHELL, E. (ED.). 1975. REVIEW OF BIOLOGY AND FISHERIES FOR SMALLER CETACEANS: REPORT ON THE MEETING OF SMALLER CETACEANS. MONTREAL, APRIL 1-11, 1974. J. FISH. RES. BD. CAN. 32(7): 889-983.

BRIEFLY DISCUSSES THE SYSTEMATICS OF SPECIES, DISTRIBUTION, POPULATION SIZE, LIFE HISTORY PARAMETERS SUCH AS AGE AT FIRST REPRODUCTION, FEEDING HABITS, AND PAST AND PRESENT EXPLOITATION. DATA INDICATES THAT LITTLE INFORMATION IS AVAILABLE ON REPRODUCTIVE PARAMETERS AND POPULATION SIZE. INCLUDES KOGIA, BERARDIUS, ZIPHIUS, DELPHINUS, LAGENORHYNCHUS, LISSODELPHIS, PHOCOENOIDES, ORCINUS, TURSIOPS, MESOPLODON, GRAMPUS, PSEUDORCA, STENO, AND GLOBICEPHALA. (D,P,R)

599. MOREJOHN, G.V. 1977. MARINE MAMMALS. PP. 1-74. IN (WINZLER AND KELLY, CONSULTING ENGINEERS), A SUMMARY OF KNOWLEDGE OF THE CENTRAL AND NORTHERN CALIFORNIA COASTAL ZONE AND OFFSHORE AREAS. VOL. 2. BIOLOGICAL CONDITIONS. BOOK 2. B.L.M. WASH, DC NTIS PB 274 213/8ST.

DISCUSSES THE DISTRIBUTION, LIFE CYCLE, BREEDING AREAS, MIGRATION ROUTES, ECOLOGY, ECONOMIC IMPORTANCE, AND ABUNDANCE OF CETACEANS. CONTAINS A DISTRIBUTION MAP FOR EACH SPECIES. INCLUDES LAGENORHYNCHUS, DELPHINUS, PHOCOENOIDES, ORCINUS, LISSODELPHIS, GRAMPUS, GLOBICEPHALA, PSEUDORCA, ZIPHIUS, MESOPLODON, BERARDIUS AND KOGIA. (D)

600. MOREJOHN, G.V., J.L. CROSS, AND D.M. BALTZ. STRANDED CETACEANS IN MONTEREY BAY. MOSS LANDING MARINE LAB., MOSS LANDING, CALIF. (UNPUBL. DATA).

NOT SEEN.

601. NISHIWAKI, M. 1967. DISTRIBUTION AND MIGRATION OF MARINE MAMMALS IN THE NORTH PACIFIC AREA. TOKYO, BULL OF THE OCEAN RES. INST., UNIV. TOKYO. NO. 1, 64 P.

INCLUDES DISTRIBUTION INFORMATION FOR CETACEANS WITH A RANGE MAP FOR EACH SPECIES. INCLUDES BERARDIUS, ZIPHIUS, MESOPLODON, KOGIA, GRAMPUS, DELPHINUS, TURSIOPS, LAGENORHYNCHUS, LISSODELPHIS, STENO, ORCINUS, GLOBICEPHALA, PSEUDORCA, AND PHOCOENOIDES. (D)

602. NORRIS, K.S., T.P. DOHL, R.C. GUESS, L. J. HOBBS, AND M.W. HONIG. 1976. CETACEA: NUMBERS, DISTRIBUTION AND MOVEMENTS IN THE SOUTHERN CALIFORNIA BIGHT. SECTION II: PP. 270-441. IN (REGENTS OF THE UNIVERSITY OF CALIFORNIA, ED.), MARINE MAMMAL AND SEABIRD SURVEY OF THE SOUTHERN CALIFORNIA BIGHT AREA. VOL. III. DRAFT FINAL REP. 1975-1976, FOR B.L.M. CONTRACT NO. 08550-CT5-28.

COMPREHENSIVE

A DETAILED REPORT ON THE DISTRIBUTION, ABUNDANCE, AND MOVEMENTS OF CETACEANS THROUGHOUT THE YEAR (1975-1976) IN THE BIGHT AREA. INCLUDES AN EXCELLENT REVIEW OF HISTORICAL SIGHTING AND STRANDING DATA. CONTAINS EXCELLENT AERIAL AND SHIPBOARD SURVEYS INCLUDING NUMBER OF HOURS FLOWN, MILES FLOWN, NUMBER OF ANIMALS SIGHTED, NUMBER OF ANIMALS PER HOUR, AND NUMBER OF ANIMALS SIGHTED PER NAUTICAL MILE. NUMBER OF ANIMALS SIGHTED ARE RECORDED BY SPECIES AND MONTH FOR APRIL 1975-MARCH 1976. DISCUSSES THE GENERAL BIOLOGY OF EACH SPECIES SUCH AS TIME OF MATING AND CALVING. INCLUDES KOGIA, MESOPLDON, ZIPHIUS, BERARDIUS. PSEUDORCA, ORCINUS, GLOBICEPHALA, LAGENORHYNCHUS, DELPHINUS TURSIOPS, GRAMPUS, LISSODELPHIS, AND PHOCOENOIDES. CONTAINS DETAILED MAPS, CHARTS AND GRAPHS. AN EXCELLENT SOURCE. (D,E,P,R)

603. OHSUMI, S. 1964. COMPARISON OF MATURITY AND ACCUMULATION RATE OF CORPORA ALBICANTIA BETWEEN THE LEFT AND RIGHT OVARIES OF CETACEA. WHALES RES. INST., SCI. REP. 18:123-148.

STUDIES WERE CONDUCTED ON 23 SPECIES OF CETACEANS. MATURITY AND OVULATION WAS FOUND TO OCCUR FROM BOTH OVARIES EQUALLY IN KOGIA, BERARDIUS, AND ZIPHIUS. THERE WAS GREATER CORPORA ACCUMULATION IN THE LEFT OVARY THAN THE RIGHT IN GRAMPUS, GLOBICEPHALA, AND ORCINUS. AFTER THE ATTAINMENT OF MATURITY, CORPORA ACCUMULATION OF THE RIGHT OVARY WAS GREATER THAN THE LEFT IN PHOCOENOIDES, LAGENORHYNCHUS, TURSIOPS, AND DELPHINUS. (R)

604. ORR, R.T. 1972. MARINE MAMMALS OF CALIFORNIA. BERKELEY, LOS ANGELES, LONDON: UNIV. CALIF. PRESS. 64 P.

PAGES 8-40 CONTAIN A GENERAL DISCUSSION ON THE BIOLOGY AND DISTRIBUTION OF CETACEANS. INCLUDES BERARDIUS, MESOPLDON, ZIPHIUS, KOGIA, STENO, PHOCOENOIDES, GLOBICEPHALA, ORCINUS, PSEUDORCA, LISSODELPHIS, DELPHINUS, GRAMPUS. LAGENORHYNCHUS, AND TURSIOPS. (D)

605. PATTEN, D.R. UNPUBLISHED CETACEAN DATA. CURATOR OF MAMMALOGY, LOS ANGELES CTY. MUS. NAT. HIST., LOS ANGELES.

MR. PATTEN HAS SOME EXTENSIVE STRANDING RECORDS AND SOME CASUAL OBSERVATIONS OF CETACEANS IN THE SOUTHERN CALIFORNIA AREA. ALSO AVAILABLE ARE LIMITED DATA ON MARINE MAMMAL/FISHERIES INTERACTIONS. MR. PATTEN HAS SEVERAL MANUSCRIPTS DEALING WITH INTERACTIONS BETWEEN PILOT WHALES AND SQUID AND SMALL NET FISHERIES. ALMOST ALL THE DATA IS IN ROUGH OR MANUSCRIPT FORM. (D,F)

606. PIKE, G.C. 1956. GUIDE TO THE WHALES, PORPOISES AND DOLPHINS OF THE NORTH-EAST PACIFIC AND ARCTIC WATERS OF CANADA AND ALASKA. FISH RES. BD. CAN., CIRC. 32, 14 P.

COMPREHENSIVE

GIVES A BRIEF DESCRIPTION OF EACH SPECIES AND ITS RANGE. INCLUDES (D)
KOGIA, BERARDIUS, MESOPLONDON, ZIPHIUS, GRAMPUS, GLOBICEPHALA,
PSEUDORCA, ORCA, PHOCOENOIDES, LAGENORHYNCHUS, DELPHINUS, LISSO-
DELPHIS, AND TURSIOPS.

607. REGENTS OF THE UNIVERSITY OF CALIFORNIA, (EDS.). 1976. DRAFT
FINAL REPORT, 1975-1976 MARINE MAMMAL AND SEABIRD SURVEY
OF THE SOUTHERN CALIFORNIA BIGHT AREA. VOL. II. DETAILED
SYNTHESIS. B.L.M. CONTRACT NO. 08550-CT5-28. 298 P.

CONTAINS A DETAILED REPORT ON CETACEANS OF SOUTHERN CALIFORNIA. (D,P)
INCLUDES DATA ON POPULATION SIZE, SEASONAL TRENDS IN ABUNDANCE,
AND SPECIES OCCURRENCE. SIGHTING DATA WAS GATHERED FOR EACH
SPECIES IN THE SPRING, SUMMER, FALL AND WINTER IN VARIOUS
ZONES OF THE BIGHT. THE ZONES CONSISTED OF THE SANTA BARBARA
CHANNEL, SANTA ROSA RIDGE, SANTA CRUZ BASIN, SANTA MONICA
BASIN, SAN PEDRO BASIN, SAN DIEGO BASIN, SAN CLEMENTE RIDGE,
TANNER-CORTES BANKS, AND THE OCEANIC ZONE. OF THE 80 OR MORE
SPECIES OF CETACEA KNOWN WORLDWIDE, 27 ARE FOUND IN THE BIGHT.
SIGHTING DATA INCLUDES NUMBER OF SIGHTINGS, NUMBER OF INDIVIDUALS,
AND AVERAGE NUMBER PER SIGHTING. INCLUDES TURSIOPS, DELPHINUS,
PHOCOENOIDES, LISSODELPHIS, LAGENORHYNCHUS, GLOBICEPHALA, GRAMPUS,
AND ORCINUS. CONTAINS MAPS, CHARTS, AND GRAPHS.

608. RICE, D.W. 1977. A LIST OF MARINE MAMMALS OF THE WORLD. U.S.
NATL. MAR. FISH. SERV., SPEC. SCI. REP. FISH. 711, 15 P.

INCLUDES A BRIEF GEOGRAPHIC DESCRIPTION OF CETACEANS. (D)

609. ROEST, A.I. 1970. KOGIA SIMUS AND OTHER CETACEANS FROM SAN
LUIS OBISPO COUNTY, CALIFORNIA. J. MAMMAL 51(2):410-416.

WHALES FOUND IN THIS AREA ARE DISCUSSED WITH REFERENCE TO (D)
SIGHTINGS AND STRANDINGS. INCLUDES: GLOBICEPHALA, KOGIA,
LAGENORHYNCHUS, LISSODELPHIS, MESOPLONDON CARLHUBBSI, AND ZIPHIUS.

610. ROEST, A.I. UNPUBLISHED CETACEAN STRANDING RECORDS. CALIF.
POLYTECHNIC STATE UNIV., SAN LUIS OBISPO.

DR. ROEST HAS AVAILABLE STRANDING RECORDS FOR CETACEANS FROM (D)
CENTRAL CALIFORNIA. INCLUDES DELPHINUS, KOGIA, PHOCOENOIDES,
GLOBICEPHALA, ZIPHIUS, LAGENORHYNCHUS, ORCINUS, LISSODELPHIS,
AND MESOPLONDON.

611. SCAMMON, C.M. 1874. PART I - CETACEA. PP. 17-109. IN THE
MARINE MAMMALS OF THE NORTHWESTERN COAST OF NORTH AMERICA

COMPREHENSIVE

TOGETHER WITH AN ACCOUNT OF THE AMERICAN WHALE-FISHERY.
NEW YORK: DOVER PUBL. INC. 1968.

BRIEF OVERALL DISCUSSION ON RANGE AND GENERAL BIOLOGY. INCLUDES (D)
ORCINUS, GLOBICEPHALA, DELPHINUS, TURSIOPS, LISSODELPHIS, AND
GRAMPUS.

612. SCHEFFER, V.B. 1949. DOLPHINS - LITTLE KNOWN MAMMALS OF THE
PACIFIC. PAC. DISC. 2(4):8-22.

NOTES SIX SPECIES OF SMALL CETACEANS FOUND ALONG THE PACIFIC (D)
COAST OF NORTH AMERICA. INCLUDES PHOCOENOIDES, LAGENORHYNCHUS,
DELPHINUS, TURSIOPS, AND LISSODELPHIS. INCLUDES ENTIRE RANGE
OF EACH SPECIES ALONG THE COAST.

613. SCHOENWALD, J. UNPUBLISHED CETACEAN STRANDING DATA. DIV. OF
BIRDS AND MAMMALS, CALIF. ACAD. SCI., SAN FRANCISCO, CALIF.

SEE ANNOTATION UNDER PINNIPEDS - COMPREHENSIVE: (SCHOENWALD, J.). (D,F)
INCLUDES LAGENORHYNCHUS, DELPHINUS, PHOCOENOIDES, KOGIA, ORCINUS,
STENO, GRAMPUS, TURSIOPS, LISSODELPHIS, AND MESOPLONDON.

614. SLIJPER, E.J. 1962. WHALES. LONDON: HUTCHINSON & CO. LTD.
475 P. (TRANSLATED BY A.J. POMERANS FROM WALVISSSEN.
AMSTERDAM: D.B. CENTEN'S, 1958).

THIS BOOK COVERS CETACEANS IN GENERAL WITH EXAMPLES GIVEN FOR (D)
THE VARIOUS SPECIES. CHAPTERS COVER SUCH AREAS AS HISTORICAL
INFORMATION, BEHAVIOR, FEEDING, DISTRIBUTION AND MIGRATION,
GENERAL BIOLOGY, AND REPRODUCTION. INCLUDES DELPHINUS,
GRAMPUS, LAGENORHYNCHUS, LISSODELPHIS, PHOCOENOIDES, STENO,
TURSIOPS AND GLOBICEPHALA.

615. SLIJPER, E.J. 1966. FUNCTIONAL MORPHOLOGY OF THE REPRODUCTIVE
SYSTEM IN CETACEA. PP. 277-319. IN (NORRIS, K.S., ED.),
WHALES, DOLPHINS, AND PORPOISES. BERKELEY AND LOS ANGELES:
UNIV. CALIF. PRESS.

FOR MALES, PROVIDES OBSERVATIONS IN THE WILD AND IN CAPTIVITY. (R)
FOR FEMALES, PROVIDES INFORMATION ON THE TIMES AND FREQUENCY
OF PREGNANCY, OVULATION, AND PARTURITION. INCLUDES DELPHINUS,
LAGENORHYNCHUS, AND STENO.

616. SLIJPER, E.J. 1976. WHALES AND DOLPHINS. ANN ARBOR: THE
UNIV. OF MICHIGAN PRESS. 170 P.

PAGES 117-132 BRIEFLY COVER REPRODUCTION IN CETACEANS. DIS- (R)
CUSSES OVULATION, GESTATION, PARTURITION, AGE OF SEXUAL

COMPREHENSIVE

MATURITY, AND FREQUENCY OF PREGNANCY. INCLUDES TOOTHED WHALES AND BALEEN WHALES.

617. SMITHSONIAN INSTITUTION. 1968. PACIFIC OCEAN BIOLOGICAL SURVEY. SMITHSONIAN INST., WASH. DC.

DURING 1967 AND 1968, 45 SHIPBOARD SURVEYS WERE CONDUCTED IN THE EASTERN NORTH PACIFIC. AREAS SURVEYED INCLUDED THE CALIFORNIA CHANNEL ISLANDS AND THE AREA FROM 29°N LATITUDE TO 37°N LATITUDE AND SEAWARD TO 126°W LONGITUDE DURING ALL QUARTERS OF THE YEAR. CETACEAN OBSERVATIONS WERE MADE BY EXPERIENCED PERSONNEL DURING SURVEYS. RESULTS ARE AVAILABLE IN THE FORM OF A COMPUTER PRINT-OUT.

(D)

618. SMITHSONIAN INSTITUTION. SEAN BULLETIN (SCIENTIFIC EVENT ALERT NETWORK). SMITHSONIAN INSTITUTION, U.S. NATL. MUS. NAT. HIST., WASH. DC.

IN 1976 THE (SEAN) BULLETIN WAS INITIATED TO HANDLE THE COMMUNICATIONS ASPECT OF MARINE MAMMAL STRANDINGS. THE (SEAN) BULLETIN IS PUBLISHED ONCE A MONTH AND CONTAINS CETACEAN STRANDINGS FROM AROUND THE WORLD. INFORMATION INCLUDES SPECIES, LOCATION, DATE OF STRANDING, NUMBER, SEX, AND LENGTH. IF AN ANIMAL WAS SHOT OR HIT BY A BOAT IT IS NOTED IN THE REMARKS SECTION.

(D)

619. SOUTHWEST FISHERIES CENTER. 1978. UNPUBLISHED CETACEAN SIGHTING RECORDS. U.S. DEPT. COMMER., NOAA(NMFS), SOUTHWEST FISHERIES CENTER, LA JOLLA, CALIF.

TO DATE (11/78) OBSERVERS ON SWORDFISH BOATS OFF SOUTHERN CALIFORNIA HAVE MADE APPROXIMATELY 50-60 CETACEAN SIGHTINGS. SIGHTING DATA INCLUDES DATES AND POSITIONS. INCLUDES PHOCOENOIDES, DELPHINUS, GRAMPUS, AND GLOBICEPHALA.

(D)

620. SULLIVAN, R.M. AND W.J. HOUCK. SIGHTINGS AND STRANDINGS OF CETACEANS FROM NORTHERN CALIFORNIA. CALIF. STATE UNIV., HUMBOLDT. 22 P. (WILL BE SUBMITTED FOR PUBLICATION).

CONTAINS INFORMATION ON SIGHTINGS AND STRANDINGS OF CETACEANS THAT OCCURRED ALONG THE COASTS OF DEL NORTE, HUMBOLDT, AND MENDOCINO COUNTIES SINCE 1965. INCLUDES DATA ON DELPHINUS, LAGENORHYNCHUS, LISSODELPHIS, GRAMPUS, PSEUDORCA, GLOBICEPHALA, PHOCOENOIDES, KOGIA, BERARDIUS, AND MESOPLDON.

(D,P)

621. TOMILIN, A.G. 1957. MAMMALS OF THE U.S.S.R. AND ADJACENT COUNTRIES. VOL. 9. TRANSLATED FROM RUSSIAN, JERUSALEM: ISRAEL PROGRAM FOR SCIENTIFIC TRANSLATION, 1967. 717 P.

COMPREHENSIVE

DISCUSSES OVERALL DISTRIBUTION, MORPHOLOGY, FOOD HABITS, REPRODUCTION, AND DISEASES OF CETACEANS. REPRODUCTIVE DATA MAY BE PERTINENT TO CETACEANS OF CALIFORNIA. INCLUDES KOGIA, BERARDIUS, ZIPHIUS, MESOPLONDON, DELPHINUS, TURSIOPS, LISSODELPHIS, LAGENORHYNCHUS, GRAMPUS, GLOBICEPHALA, PSEUDORCA, ORCINUS, AND PHOCOENOIDES. (D,R)

622. TOMILIN, A.G. AND M.I. SMYSHLYAYEV. 1968. SOME FACTORS AFFECTING WHALE MORTALITY (DISEASES OF CETACEANS). LANGUAGE SERV. BR., OFF. INTERNATL. FISH., U.S. DEPT. COMMER., NOAA(NMFS), WASH. DC 9 P.

BRIEFLY DISCUSSES HUMAN FACTORS AND BIOTIC FACTORS ASSOCIATED WITH MORTALITY AMONG CETACEANS. MENTIONS THAT CETACEANS SUFFER MORE OFTEN FROM EXTERNAL AND ESPECIALLY INTERNAL PARASITES WHICH EXHAUST AND WEAKEN THEM THAN FROM ENEMIES. NOTES THAT THE DESTRUCTIVE EFFECTS OF PARASITES AND THEIR INFLUENCE ON THE MORTALITY RATE ARE STILL OBSCURE. (M)

623. U.S. GEOLOGICAL SURVEY. 1976. MARINE MAMMALS. PP. 303-320. IN FINAL ENVIRONMENTAL STATEMENT OIL AND GAS DEVELOPMENT IN THE SANTA BARBARA CHANNEL OUTER CONTINENTAL SHELF OFF CALIFORNIA. VOL 2 OF 3. DEP. INTER.

PAGES 303-312 CONTAIN INFORMATION ON CETACEANS. INCLUDES DATA ON THE AVERAGE NUMBER OF WHALES AND PORPOISES SEEN PER DAY DURING TWO SURVEY PERIODS FROM JANUARY TO MARCH AND APRIL TO MAY 1969. CONTAINS A TABLE WITH THE NUMBER OF HERDS OF PORPOISE OBSERVED DURING PEAK PERIODS SOUTH OF POINT CONCEPTION AND OCCASIONAL OR SEASONAL CETACEAN VISITORS TO CALIFORNIA. BRIEFLY MENTIONS OVERALL DISTRIBUTION AND POPULATION SIZE IF KNOWN. INCLUDES PSEUDORCA, ORCINUS, GLOBICEPHALA, MESOPLONDON, ZIPHIUS, KOGIA, TURSIOPS, DELPHINUS, LAGENORHYNCHUS, LISSODELPHIS, AND PHOCOENOIDES. (D,E,P)

624. WALKER, E.P. 1964. MAMMALS OF THE WORLD. VOL II. BALTIMORE: THE JOHN HOPKINS PRESS.

PAGES 1083-1145 DISCUSS THE DISTRIBUTION AND GENERAL BIOLOGY OF VARIOUS CETACEANS. INCLUDES MESOPLONDON, ZIPHIUS, BERARDIUS, KOGIA, ORCINUS, PSEUDORCA, GLOBICEPHALA, STENO, GRAMPUS, DELPHINUS, LAGENORHYNCHUS, TURSIOPS, LISSODELPHIS, AND PHOCOENOIDES. (D)

625. WALKER, W.A. 1974. PRELIMINARY REPORT ON FREQUENCY AND PATHOLOGY OF SMALL CETACEAN STRANDINGS IN THE AREA OF LOS ANGELES COUNTY, CALIFORNIA. PREP. UNDER CONTRACT FOR THE WESTERN OIL & GAS ASS., RANCHO PALOS VERDES, CALIF. 15 P.

COMPREHENSIVE

CONTAINS INFORMATION ON 80 STRANDINGS DURING THE FOUR YEAR PERIOD (D)
1970-1973. DATA INCLUDES STRANDING FREQUENCY BY MONTH AND SPECIES,
LOCATION, AND PATHOLOGY. INCLUDES DELPHINUS, LAGENORHYNCHUS, LISSO-
DELPHIS, TURSIOPS, GLOBICEPHALA, AND PHOCOENOIDES.

626. WALKER, W.A. 1975. REVIEW OF THE LIVE-CAPTURE FISHERY FOR
SMALLER CETACEANS TAKEN IN SOUTHERN CALIFORNIA WATERS FOR
PUBLIC DISPLAY, 1966-73. J. FISH. RES. BD. CAN. 32(7):
1197-1211.

A TOTAL OF 132 CETACEANS WERE TAKEN DURING 1966-72 IN A LIVE (D)
CAPTURE FISHERY FOR DISPLAY AT MARINELAND OF THE PACIFIC. THIS
TOTAL INCLUDED 22 DELPHINUS, 33 GLOBICEPHALA, 51 LAGENORHYNCHUS,
2 LISSODELPHIS, 8 PHOCOENOIDES, AND 18 TURSIOPS. ALSO PRESENTS
MORTALITY DATA FOR EACH NEWLY CAPTURED SPECIES COLLECTED BETWEEN
1966-72.

627. YABLOKOV. A.V., V.M. BEL'KOVICH, AND V.I. BORISOV. 1974. WHALES
AND DOLPHINS. PART II. JOINT PUBLICATIONS RESEARCH SERV.,
JPRS-62150-1, NTIS, ARLINGTON, VA.

PAGES 332-350 CONTAIN A GOOD DISCUSSION ON DISTRIBUTION AND RE- (D,M,R)
PRODUCTION OF CETACEANS IN GENERAL. INCLUDES INFORMATION ON
GESTATION, PARTURITION, FREQUENCY OF MULTIPLE BIRTHS, LACTATION,
FREQUENCY OF PREGNANCY, SEX RATIOS, AND PRENATAL MORTALITY.
INCLUDES DISTRIBUTION MAPS FOR KOGIA, GRAMPUS, LISSODELPHIS,
DELPHINUS, PSEUDORCA, TURSIOPS, PHOCOENOIDES, GLOBICEPHALA,
AND STENO.

BERARDIUS BAIRDII - BAIRD'S BEAKED WHALE, GIANT BOTTLENOSE WHALE

628. DAVIDSON, M.E.M. 1929. BAIRD'S BEAKED WHALE AT SANTA CRUZ, CALIFORNIA. J. MAMMAL. 10(4):356-358.

PUBLISHED ACCOUNT OF A STRANDING IN JUNE 1925.

(D)

629. KASUYA, T. 1977. AGE DETERMINATION AND GROWTH OF THE BAIRD'S BEAKED WHALE WITH A COMMENT ON THE FETAL GROWTH RATE. WHALES RES. INST., SCI. REP. 29:1-20.

DISCUSSES REPRODUCTIVE PARAMETERS, LONGEVITY, AND RELATIONSHIP BETWEEN BODY LENGTH AND AGE OF SEXUAL MATURITY.

(R)

630. MC CANN, C. 1975. A STUDY OF THE GENUS BERARDIUS DUVERNOY. WHALES RES. INST., SCI. REP. 27:111-140.

THE TAXONOMY AND DISTRIBUTION OF THE TWO KNOWN SPECIES OF BAIRD'S BEAKED WHALE, B. ARNOUXI DUVERNOY AND B. BAIRDI STEJNEGER ARE REVIEWED. MENTIONS BREEDING, FOOD HABITS, AND PARASITES.

(D)

631. NISHIWAKI, M. 1972. GENERAL BIOLOGY. PP. 3-204. IN (RIDGWAY, S.H. ED.), MAMMALS OF THE SEA. BIOLOGY AND MEDICINE. SPRINGFIELD, IL: C.C. THOMAS

PAGES 44-48 DISCUSS THE GENERAL DISTRIBUTION, ABUNDANCE, AND REPRODUCTION OF BAIRD'S BEAKED WHALE WITH REFERENCE TO A RELATED SPECIES.

(D)

632. NISHIWAKI, M. AND N. OGURO. 1971. BAIRD'S BEAKED WHALES CAUGHT ON THE COAST OF JAPAN IN RECENT 10 YEARS. WHALES RES. INST., SCI. REP. 23:111-122.

DATA FROM 701 BAIRD'S BEAKED WHALES CAUGHT OFF JAPAN FROM 1965-1969 IS DISCUSSED. OVERALL SEX RATIO WAS 57% MALE, 43% FEMALE. 80% OF THE MALES AND 70% OF THE FEMALES WERE SAID TO BE SEXUALLY MATURE. A GRAPH OF THE MEAN GROWTH CURVE FOR FOETUSES IS PRESENTED, AND FEEDING HABITS ARE DISCUSSED.

(D,R)

633. OHSUMI, S., Y. MASAKI, AND S. WADA. 1976. A NOTE ON THE DISTRIBUTION OF SOME SMALLER CETACEANS IN THE NORTH PACIFIC. INTERNATIONAL WHALING COMMISSION, SUBCOMMITTEE ON SMALL CETACEANS, IWC/SC/28/LONDON. 6 P.

CONTAINS SIGHTING DATA WITH A MAP OF THE AVERAGE DENSITY DISTRIBUTION OF GIANT BOTTLENOSE WHALES IN THE NORTH PACIFIC FROM 1965-1975.

(D,P)

BERARDIUS

634. OMURA, H., K. FUJINO, AND S. KIMURA. 1955. BEAKED WHALE
BERARDIUS BAIRDI OF JAPAN, WITH NOTES ON ZIPHIUS CAVI-
ROSTRIS. WHALES RES. INST., SCI. REP. 10:89-132.

DISCUSSES DATA FROM 924 BAIRD'S BEAKED WHALES CAUGHT OFF JAPAN
FROM 1948-1952. INCLUDES PAIRING, PARTURITION, GESTATION, SEX
RATIOS, AND BODY LENGTH AT SEXUAL MATURITY. SEX RATIO GIVEN
AS 68% MALES AND 32% FEMALES. MALE/FEMALE SIZE DISTRIBUTION
IS GRAPHED. SEXUAL MATURITY OCCURS AT 32-33 FEET IN MALES
AND 33-34 FEET IN FEMALES.

(R)

635. RICE, D.W. 1963. PROGRESS REPORT ON BIOLOGICAL STUDIES OF
THE LARGER CETACEA IN THE WATERS OFF CALIFORNIA. NORSK
HVAL.-TID. 52(7):181-187.

INCLUDES A CHART OF THE WHALING GROUNDS OFF CENTRAL CALIFORNIA
AND THE NUMBER OF BAIRD'S BEAKED WHALES TAKEN FROM 1956-1962.

(D)

636. RICE, D.W. 1974. WHALES AND WHALES RESEARCH IN THE EASTERN
NORTH PACIFIC. PP. 170-195. IN (SCHEVILL, W.E., ED.),
THE WHALE PROBLEM: A STATUS REPORT. CAMBRIDGE, MASS.:
HARVARD UNIV. PRESS.

BRIEF DISCUSSION OF THE NUMBER AND SEX OF BAIRD'S BEAKED WHALES
TAKEN OFF CALIFORNIA FROM 1956-1970. INCLUDES A BRIEF NOTE ON
DISTRIBUTION AND POPULATION SIZE.

(D,P)

637. TRUE, F.W. 1910. AN ACCOUNT OF THE BEAKED WHALES OF THE FAMILY
ZIPHIDAE IN THE COLLECTION OF THE U.S. NATIONAL MUSEUM,
WITH REMARKS ON SOME SPECIMENS IN OTHER AMERICAN MUSEUMS.
U.S. NAT'L MUS., BULL. 73:1-89.

MENTIONS A STRANDING OF A BERARDIUS BAIRDI IN CALIFORNIA IN 1904
ON PAGE 77.

(D)

638. U.S. DEPARTMENT OF COMMERCE. 1978. REPORT OF THE SECRETARY
OF COMMERCE ON ADMINISTRATION OF THE MARINE MAMMAL
PROTECTION ACT OF 1972. ANNUAL REPORT, APRIL 1, 1977
TO MARCH 31, 1978. PREPARED BY NOAA(NMFS). 183 P.

PAGE 171 DISCUSSES OVERALL DISTRIBUTION, ABUNDANCE, AND GENERAL
BIOLOGY OF THE GIANT BOTTLENOSE WHALE. NOTES THAT THIS WHALE
IS UNCOMMON BUT NOT RARE THROUGHOUT ITS RANGE.

(D)

DELPHINUS DELPHIS - COMMON DOLPHIN

639. BANKS, R.C. AND R.L. BROWNELL. 1969. TAXONOMY OF THE COMMON DOLPHINS OF THE EASTERN PACIFIC OCEAN. J. MAMMAL. 50(2):262-271.

MORPHOLOGICAL AND GEOGRAPHICAL COMPARISON OF DELPHINUS DELPHIS AND DELPHINUS BAIRDII WITH REFERENCE TO SPECIMENS EXAMINED AND WHERE THEY WERE COLLECTED. MENTIONS THAT THE RESTRICTION OF BAIRDII TO MORE SOUTHERLY WATERS, PROBABLY AS A RESULT OF A CHANGE IN WATER TEMPERATURE, MAY HAVE PERMITTED DELPHIS TO MOVE INTO INSHORE CALIFORNIA WATERS.

(D)

640. BUREAU OF LAND MANAGEMENT. 1975. MARINE MAMMALS. PP. 407-445. IN FINAL ENVIRONMENTAL STATEMENT PROPOSED 1975 OUTER CONTINENTAL SHELF OIL AND GAS GENERAL LEASE SALE OFFSHORE SOUTHERN CALIFORNIA. VOL. 1 OF 5. U.S. DEPT. INTER.

PAGES 423-424 DISCUSS THE OVERALL DISTRIBUTION, STUDY AREA SIGHTINGS, POPULATION SIZE, AND LIFE HISTORY OF THE COMMON DOLPHIN. MENTIONS THAT THIS DOLPHIN IS THE MOST ABUNDANT CETACEAN FROM PT. CONCEPTION TO ENSENADA.

(D,P)

641. CORNELL, L.H. AND J.E. ANTRIM. 1977. LIVE STRANDINGS OF COMMON DOLPHINS, DELPHINUS DELPHIS, IN SAN DIEGO, CALIFORNIA (ABSTRACT). PROCEEDINGS OF THE SECOND CONFERENCE ON THE BIOLOGY OF MARINE MAMMALS. SAN DIEGO, CALIF., DEC. 12-15, 1977.

DURING THE LAST FIVE YEARS 20 DELPHINUS HAVE BEEN RECOVERED FROM THIS AREA.

(D)

642. EVANS, W.E. 1971. ORIENTATION BEHAVIOR OF DELPHINIDS: RADIO TELEMETRIC STUDIES. ANN. N.Y. ACAD. SCI. 188: 142-160.

SIGHTING AND CAPTURE RECORDS FOR THE COMMON DOLPHIN FROM JULY 1968 TO JULY 1970 ARE DISCUSSED. INCLUDES COMMON DOLPHIN TAGGED AND RELEASED OFF SOUTHERN CALIFORNIA WITH RADIO TRACKS AND AERIAL SIGHTINGS.

(D)

643. EVANS, W.E. 1974. DELPHINUS, ANCHOVY, SQUID, HAKE RELATIONSHIP IN SOUTHERN CALIFORNIA WATERS. FAO/ACMRR WORKING PARTY ON MARINE MAMMALS, AD HOC GROUP II - SMALL CETACEANS AND SIRENIANS, LA JOLLA, 16-19 DEC. 1974. 7P.

DISCUSSES THE TENDENCY FOR DELPHINUS IN SOUTHERN CALIFORNIA WATERS TO FEED PREDOMINANTLY ON ANCHOVIES AND SQUID DURING THE FALL AND WINTER WITH A CHANGE TO MAINLY DEEP SEA SMELT

(F,P)

DELPHINUS

AND LANTERN FISHES OF SEVERAL SPECIES DURING THE SPRING AND SUMMER MONTHS. THIS STUDY CONTAINS THE ANALYSIS OF 35 STOMACHS. ALSO DISCUSSES THE RELATIVE ABUNDANCE OF DELPHINUS IN THE SOUTHERN CALIFORNIA CONTINENTAL BORDERLAND AND THEIR PROSPECTIVE FEEDING RATE. MENTIONS THAT DELPHINUS IN SOUTHERN CALIFORNIA CONSUME APPROXIMATELY 300,000 TONS OF ANCHOVY/YEAR.

644. EVANS, W.E. 1975. DISTRIBUTION, DIFFERENTIATION OF POPULATIONS, AND OTHER ASPECTS OF THE NATURAL HISTORY OF DELPHINUS DELPHIS LINNAEUS IN THE NORTHEASTERN PACIFIC. PH.D. THESIS, UNIV. CALIF. LOS ANGELES. DISS. ABSTR. INTERNATL. 36(10):4893-B.

DISCUSSES DISTRIBUTION AND SEASONAL ABUNDANCE WITHIN THE AREA OF THE SOUTHERN CALIFORNIA CONTINENTAL BORDERLAND.

(D,P)

645. EVANS, W.E. 1976. DISTRIBUTION AND DIFFERENTIATION OF STOCKS OF DELPHINUS DELPHIS LINNAEUS IN THE NORTHEASTERN PACIFIC. ADVISORY COMM. ON MAR. RESOUR. RES. U.N., F.A.O., ACMRR/MM/SC/18. 72 P.

THIS STUDY WAS INITIATED IN 1966 AND INCLUDES: A REVIEW OF THE OVERALL DISTRIBUTION OF DELPHINUS, A DEFINITION OF FOUR SEPARATE STOCKS, AND A DISCUSSION OF THE MONTHLY CHANGES IN THE RELATIVE ABUNDANCE OF DELPHINUS HERDS IN THE SOUTHERN CALIFORNIA CONTINENTAL BORDERLAND. STATES THAT CHANGES IN ABUNDANCE ARE A FUNCTION OF SEASONAL MOVEMENT PATTERNS, FOOD ABUNDANCE, FEEDING BEHAVIOR, WATER TEMPERATURE, AND REPRODUCTIVE BEHAVIOR. ALSO NOTES THAT DELPHINUS IS THE MOST COMMON DOLPHIN IN SOUTHERN CALIFORNIA WATERS, REPRESENTING 53% OF ALL THE ODONTOCETE CETACEANS ENCOUNTERED IN 654 OBSERVATIONS. INCLUDES MAPS, GRAPHS, AND CHARTS.

(D,E,P,R)

646. EVANS, W.E., J.D. HALL, A.B. IRVINE, AND J.S. LEATHERWOOD. 1972. METHOD FOR TAGGING SMALL CETACEANS. FISH. BULL., U.S. 70(1):61-65.

240 COMMON DOLPHIN WERE SPAGETTI TAGGED IN AN AREA FROM PT. CONCEPTION, CALIFORNIA TO CABO SAN LUCAS, BAJA CALIFORNIA.

(D)

647. EVANS, W.E. AND J.S. LEATHERWOOD. 1972. THE USE OF AN INSTRUMENTED MARINE MAMMAL AS AN OCEANOGRAPHIC SURVEY PLATFORM. NAVAL UNDERSEA CENTER, SAN DIEGO, CALIF. NUC TP 331. 11 P.

DELPHINUS

AN ACCOUNT OF THE RADIO TAGGING OF A MALE COMMON DOLPHIN
OFF THE COAST OF SOUTHERN CALIFORNIA. INCLUDES A MAP WITH
DATES AND LOCATIONS OF RADIO TRACKING EFFORT.

(D)

648. FITCH, J.E. AND R.L. BROWNELL. 1968. FISH OTOLITHS IN
CETACEAN STOMACHS AND THEIR IMPORTANCE IN INTERPRETING
FEEDING HABITS. J. FISH. RES. BD. CAN. 25(12):2561-
2574.

THE STOMACHS OF TWO COMMON DOLPHIN COLLECTED IN 1964 AND 1968
OFF SOUTHERN CALIFORNIA SHOW A DEPENDENCY ON MESOPELAGIC
FISHES CAUGHT AT THE 600-800 FT. LEVEL. MENTIONS THAT FUTURE
UNCONTROLLED HARVEST OF FISH FROM THE SCATTERING LAYER COULD
HAVE A DISASTROUS EFFECT ON OUR DOLPHIN, PORPOISE, AND WHALE
POPULATIONS.

(D,F)

649. HARRISON, R.J., R.C. BOICE, AND R.L. BROWNELL. 1969. REPRO-
DUCTION IN WILD AND CAPTIVE CETACEANS. NATURE, (LONDON),
222(5199):1143-1147.

GONADAL CHANGES AND CHARACTERISTICS OF THE CORPORA ALBANTICA
PROVIDE INFORMATION ON REPRODUCTIVE ACTIVITIES IN COMMON
DOLPHIN. INCLUDES INFORMATION ABOUT BIRTH, SEX ORGANS, TIMES
OF MATING, AND DIFFERENCES IN AGE.

(R)

650. HUI, C.A. 1973. AGE CORRELATIONS IN THE COMMON DOLPHIN,
DELPHINUS DELPHIS LINNAEUS. M.A. THESIS, CALIF. STATE
UNIV., SAN DIEGO. 64 P.

A TOTAL OF 116 SPECIMENS WERE EXAMINED, 109 OF WHICH WERE
ACQUIRED WITHIN A 100 MILE RADIUS OF SAN DIEGO. CONTAINS DATA
ON THE SEX AND AGE DISTRIBUTION OF THE STUDY SAMPLE WITH IN-
FERENCES MADE CONCERNING THE PROJECTED SURVIVORSHIP AND
AGE-SPECIFIC MORTALITY RATES.

(D,M)

651. JENNISON, G. 1927. TABLE OF GESTATION PERIODS AND NUMBER OF
YOUNG. LONDON: A.C. BLACK, LTD.

NOT SEEN. SUPPOSED TO INCLUDE DELPHINUS DELPHIS.

652. KENNETH, J.H. 1943. GESTATION PERIODS, A TABLE AND BIBLIO-
GRAPHY. EDINBURGH: OLIVER BOYD. 23 P. (SEC. ED., 1947,
30 P.).

NOT SEEN. SUPPOSED TO INCLUDE DELPHINUS DELPHIS.

DELPHINUS

653. NISHIWAKI, M. 1972. GENERAL BIOLOGY. PP. 3-204. IN
(RIDGWAY, S.H., ED.), MAMMALS OF THE SEA. BIOLOGY AND
MEDICINE. SPRINGFIELD, IL.: C.C. THOMAS.

PAGES 76-79 DISCUSS THE OVERALL DISTRIBUTION OF DELPHINUS WITH
REFERENCE TO DIFFERENT SPECIES. (D)

654. NORRIS, K.S. AND J.H. PRESCOTT. 1961. OBSERVATIONS ON PACIFIC
CETACEANS OF CALIFORNIA AND MEXICAN WATERS. UNIV. CALIF.
PUBL. ZOO. 63(4):291-402.

PAGES 309-311 DISCUSS RANGE, SIGHTING RECORDS, AND LOCALITIES
OF CAPTURE OFF SOUTHERN CALIFORNIA FOR THE COMMON DOLPHIN.
CONTAINS A BRIEF OVERVIEW OF REPRODUCTION. (D)

655. OLIVER, C.W. 1973. GONADAL APPEARANCE AND SEXUAL MATURITY
IN EASTERN TROPICAL PACIFIC COMMON DOLPHIN. ZOOLOGY 118,
DR. LILLIGRAVEN, SAN DIEGO STATE UNIV., 18 P. (UNPUBL.
REPORT).

TESTICULAR LENGTH, WEIGHT, AND ACTIVITY IS PRESENTED AND RELATED
TO TOTAL BODY LENGTH FOR 41 DELPHINUS. AN ESTIMATE OF BODY
LENGTH AT THE ATTAINMENT OF SEXUAL MATURITY IS PRESENTED. (R)

656. RICE, D.W. 1963. THE WHALE MARKING CRUISE OF THE SIOUX CITY
OFF CALIFORNIA AND BAJA CALIFORNIA. NORSK HVAL.-TID.
52(6):153-160.

CONTAINS SIGHTING RECORDS OF ABOUT 320 COMMON DOLPHIN IN 11
SCHOOLS IN NOVEMBER 1962. POSITIONS OF SIGHTINGS ARE GIVEN. (D)

657. RIDGWAY, S.H. AND R.F. GREEN. 1967. EVIDENCE FOR A SEXUAL
RHYTHM IN MALE PORPOISES, LAGENORHYNCHUS OBLIQUIDENS
AND DELPHINUS DELPHIS BAIRDII. NORSK HVAL.-TID. 56(1):
1-8.

MENTIONS PEAK BREEDING SEASON OF MID TO LATE SUMMER FOR POR-
POISE FOUND OFF CENTRAL AND SOUTHERN CALIFORNIA. DATA WAS
OBTAINED FROM FOUR PACIFIC WHITE-SIDED DOLPHINS AND FIVE
COMMON DOLPHINS COLLECTED OFF THE CALIFORNIA COAST. (D,R)

658. SERGEANT, D.E. 1959. ON THE EVOLUTION OF LIFE HISTORIES IN
THE DELPHINIDAE. SECTION: 8 SEPT. 1959. POPULATIONS
OF THE SEA. 3. EVOLUTION AND ADAPTATION IN THE SEA.
FISH. RES. BD. CAN., MONTREAL.

DISCUSSES THE RELATIVE BODY LENGTHS OF THE SEXES, LENGTH AND
AGES AT SEXUAL MATURITY, AND REPRODUCTIVE FREQUENCY FOR DEL- (R)

DELPHINUS

PHINUS. NOTES THAT ABOUT ONE PREGNANCY IN FOUR IS MISSED.

659. SLEPTSOV, M.M. 1940. AGE DETERMINATION OF COMMON DOLPHIN (DELPHINUS DELPHIS, L.). BULL. NAT. SCI., SECTION BIOLOGY, VOL. 49(2):43-49.

IN RUSSIAN WITH AN ENGLISH SUMMARY. STUDIES WERE CONDUCTED ON 858 LACTATIVE AND BARREN FEMALES. DATA INCLUDES FREQUENCY OF PREGNANCY AND THE AGE OF SEXUAL MATURITY FOR BOTH SEXES. NOTES THAT A SEXUALLY MATURE FEMALE MAY MISS A PREGNANCY EVERY FOUR YEARS DUE TO DISPLACEMENT OF THE SEXUAL CYCLE IN CONNECTION WITH PREGNANCY AND PARTURITION. (R)

660. SLEPTSOV, M.M. 1941. ON THE BIOLOGY OF REPRODUCTION OF THE BLACK SEA DOLPHIN DELPHINUS DELPHIS. ZOOL. ZHUR. 20(4-5): 632-653.

DESCRIBES THE REPRODUCTIVE SYSTEM FOR MALES AND FEMALES AND THE REPRODUCTIVE CYCLE. INCLUDES FREQUENCY OF PREGNANCY AND AGE OF SEXUAL MATURITY. (R)

661. SMITH, P.E. 1976. AN EXPLORATION OF THE IMPORTANCE OF PREDATION ON NORTHERN ANCHOVY BY FISH, MAMMALS, INVERTEBRATES AND BIRDS. U.S. DEPT. COMMER., NOAA (NMFS), SOUTHWEST FISHERIES CENTER, LA JOLLA, CALIF. SWFC ADMIN. REP. LJ-76.

PRESENTS DATA ON THE LOCAL DENSITY AND FEEDING RATES OF DELPHINUS IN THE LOS ANGELES BIGHT AREA. MENTIONS THE FOLLOWING ASSUMPTION: 42 PORPOISE PER 100 KM² AT AN AVERAGE WEIGHT OF 54.2 KG WOULD EAT 5.3 KG/DAY OR AN AVERAGE OF 20 METRIC TONS PER QUARTER PER 100 KM². (E,F)

662. U.S. DEPARTMENT OF COMMERCE. 1978. REPORT OF THE SECRETARY OF COMMERCE ON ADMINISTRATION OF THE MARINE MAMMAL PROTECTION ACT OF 1972. ANNUAL REPORT, APRIL 1, 1977 TO MARCH 31, 1978. PREPARED BY NOAA/NMFS. 183 P.

PAGES 138-139 DISCUSS THE OVERALL DISTRIBUTION, ABUNDANCE, FEEDING HABITS, AND GENERAL BIOLOGY OF DELPHINUS. MENTIONS THAT IN SOUTHERN CALIFORNIA WATERS DELPHINUS IS PRESENT THROUGHOUT THE YEAR, BUT IS MOST ABUNDANT FROM AUGUST TO JANUARY. ALSO MENTIONS THAT AN INCREASE IN THE ANCHOVY AND SQUID FISHERIES MIGHT HAVE A NOTICEABLE EFFECT ON THE PORPOISE POPULATIONS. (D,F)

GLOBICEPHALA MACRORHYNCHUS - SHORT-FINNED PILOT WHALE

663. ANNUAL REPORT OF THE FISHERIES RESEARCH BOARD OF CANADA. 1953.
PILOT WHALES OR POTHEAD WHALES OUTSIDE NEWFOUNDLAND.
CITED FROM: NORSK HVAL. - TID. 44(2):81-83.

EXCELLENT SOURCE ON REPRODUCTION IN PILOT WHALES. CONTAINS (R)
A DETAILED DISCUSSION ON THE AGE AND LENGTH OF SEXUAL MATUR-
ITY FOR BOTH SEXES. SOME 300 MATURE COWS WERE EXAMINED IN
ORDER TO DETERMINE REPRODUCTIVE CONDITIONS. INCLUDES LENGTH
OF GESTATION, PREGNANCY RATE, AND THE NUMBER OF CALVES PRO-
DUCED IN FEMALE'S LIFETIME.

664. ANONYMOUS. 1943. WHALE 15 FEET LONG ROPED AT SAN PEDRO.
SUNDAY SAN DIEGO TRIBUNE.

BRIEF NOTE ON A WHALE THAT ENTERED SAN PEDRO HARBOR AND (D)
BASHED ITS HEAD AGAINST THE ROCKS. AN ATTEMPT WAS MADE TO
PULL WHALE OUT OF HARBOR. WHALE WAS LATER IDENTIFIED AS A
CALIFORNIA BLACKFISH.

665. BARHAM, E. 1978. HISTORICAL MARINE MAMMAL SIGHTINGS IN
MONTEREY BAY. U.S. DEPT. COMMER., NOAA/NMFS, SOUTH-
WEST FISHERIES CENTER, LA JOLLA, CALIF. 18 P. (UN-
PUBL. MANUSCR.).

NOTES THREE SIGHTINGS OF PILOT WHALES IN 1952. (D)

666. BROWN, D.H. 1960. BEHAVIOR OF A CAPTIVE PILOT WHALE. J.
MAMMAL. 41(3):342-349.

NOTES THE CAPTURE OF A LIVE WHALE OFF SANTA CATALINA ISLAND (D)
IN FEBRUARY 1957. MENTIONS THAT ALONG WITH THE CAPTURED
ANIMAL THERE WERE FIVE OR SIX OTHER PILOT WHALES AND SEVERAL
PACIFIC WHITE-SIDED DOLPHIN NEARBY.

667. BUREAU OF LAND MANAGEMENT. 1975. MARINE MAMMALS. PP. 407-
445. IN FINAL ENVIRONMENTAL STATEMENT PROPOSED 1975 OUTER
CONTINENTAL SHELF OIL AND GAS GENERAL LEASE SALE OFF-
SHORE SOUTHERN CALIFORNIA. VOL. 1 OF 5. U.S. DEPT. INTER.

PAGES 417-418 DISCUSS OVERALL DISTRIBUTION, STUDY AREA SIGHTINGS, (D,P)
LIFE HISTORY, AND DISEASES OF PILOT WHALES. MENTIONS THAT THIS
WHALE IS THE FOURTH MOST ABUNDANT WHALE FROM PT. CONCEPTION TO
ENSENADA.

668. CONTOS, S.M. 1978. MARINE MAMMAL NEWS 4(7):4-5.

CITING NEW EVIDENCE, THE AMERICAN CETACEAN SOCIETY HAS ASKED (F)
THE (NMFS) TO REOPEN ITS INVESTIGATION INTO THE DEATHS OF AT

GLOBICEPHALA

LEAST EIGHT PILOT WHALES OFF PT. DUME AND MALIBU, CALIFORNIA LAST NOVEMBER. MORTALITIES MAY HAVE BEEN THE RESULT OF A CONFLICT WITH COMMERCIAL FISHERMEN.

669. HALL, J.D., W.G. GILMARTIN AND, J.L. MATTSSON. 1971. INVESTIGATION OF A PACIFIC PILOT WHALE STRANDING ON SAN CLEMENTE ISLAND. J. WILDL. DIS. 7:324-327.

CONTAINS AN ACCOUNT OF 28 WHALES WHICH SWAM ASHORE AT PYRAMID COVE IN JANUARY 1971. SIX OF THE WHALES WERE MALES AND 21 WERE FEMALES. INCLUDES A DISCUSSION OF TISSUE SAMPLES.

(D)

670. HARRISON, R.J. 1949. OBSERVATIONS ON THE FEMALE REPRODUCTIVE ORGANS OF THE CA'AINING WHALE GLOBICEPHALA MALAENA TRAILL. J. ANAT. 83:238-253.

CONTAINS A BRIEF OVERVIEW ON THE REPRODUCTIVE PATTERN OF PILOT WHALES.

(R)

671. HUI, C.A. DISTRIBUTION OF PILOT WHALES AND THE BATHYMETRY OF SOUTHERN CALIFORNIA WATERS. OCEAN SCIENCES DEPT., NAVAL UNDERSEA CENTER (NUC), SAN DIEGO, CALIF. 15 P.

THE AREA STUDIED WAS THE PORTION OF THE SOUTHERN CALIFORNIA CONTINENTAL BORDERLAND WHICH IS BOUNDED ON THE WEST BY 120° WEST LONGITUDE AND ON THE EASTERN BORDER BY THE COAST OF SOUTHERN CALIFORNIA. THE NORTHERN AND SOUTHERN BORDERS OF THE STUDY AREA WERE 34°05' NORTH LATITUDE AND 32°24' NORTH, RESPECTIVELY. FROM 1968-1976, AERIAL SURVEYS WERE CONDUCTED AND GLOBICEPHALA SIGHTINGS WERE RECORDED NOTING THE NUMBER OF ANIMALS AND TIME AND LOCATION OF OBSERVATIONS. CONTAINS A CHART WITH RECORDS OF AERIAL SAMPLING BY MONTH SHOWING NUMBER OF FLIGHTS, NUMBER OF MILES FLOWN, NUMBER OF HERDS OBSERVED, AND NUMBER OF INDIVIDUAL ANIMALS SEEN. ALSO CONTAINS A MAP OF SOUTHERN CALIFORNIA SHOWING AREAS OF GLOBICEPHALA SIGHTINGS.

(D,E)

672. LEATHERWOOD, J.S. AND M.E. DAHLHEIM. 1978. WORLDWIDE DISTRIBUTION OF PILOT WHALES AND KILLER WHALES. NAVAL OCEAN SYSTEMS CENTER, NOSC TR 295, SAN DIEGO, CALIF. 39 P.

THIS PAPER SUMMARIZES WHAT IS KNOWN AND CAN REASONABLY BE PREDICTED ABOUT THE DISTRIBUTION AND SEASONAL MOVEMENTS OF PILOT WHALES. NOTES THAT OFFSHORE SOUTHERN CALIFORNIA, PILOT WHALES ARE MOST COMMON IN THE WINTER MONTHS, OCTOBER THROUGH MARCH, CORRESPONDING WITH THE INSHORE SPAWNING MIGRATION OF SQUID. CONTAINS MAPS OF THE WORLDWIDE DISTRIBUTION OF PILOT WHALES AND THE LIKELIHOOD OF OCCURRENCE OF PILOT WHALES IN THE WORLD'S OCEANS.

(D)

GLOBICEPHALA

673. NIDEVER, H.B. 1921. BLACK FISH NEAR SANTA CATALINA ISLAND.
CALIF. FISH & GAME 7(1):64.

CONTAINS SIGHTING RECORD OF APPROXIMATELY 100 PILOT WHALES IN
NOVEMBER 1920. (D)

674. NISHIWAKI, M. 1972. GENERAL BIOLOGY. PP. 3-204. IN
(RIDGWAY, S.H., ED.), MAMMALS OF THE SEA. BIOLOGY AND
MEDICINE. SPRINGFIELD, IL: C.C. THOMAS.

PAGES 125-129 DISCUSS OVERALL DISTRIBUTION OF THE PACIFIC
PILOT WHALE WITH REFERENCE TO RELATED SPECIES. STATES MAIN
FOOD SOURCE AS BEING SQUID. (D)

675. NORRIS, K.S. 1958. THE BIG ONE GOT AWAY. PAC. DISC. 11(5):
3-9.

VERY GENERAL ARTICLE ON SIGHTINGS OF PILOT WHALES OFF SOUTH-
ERN CALIFORNIA AND THE CAPTURE OF ONE. (D)

676. NORRIS, K.S. AND J.H. PRESCOTT. 1961. OBSERVATIONS ON
PACIFIC CETACEANS IN CALIFORNIA AND MEXICAN WATERS. UNIV.
CALIF. PUBL. ZOO. 63:291-370.

PAGES 336-348 DISCUSS RANGE, CAPTURE OBSERVATIONS, SIGHTINGS,
AND BEHAVIOR OF THE PILOT WHALE IN THE WILD AND IN CAPTIVITY. (D)

677. PAYNE, M. 1978. PILOT WHALE DEATHS: MYSTERY OFF MALIBU.
WHALE WATCHER - J. AM. CETACEAN SOC. 12(3):11.

BRIEFLY DISCUSSES THE MYSTERIOUS DEATHS OF AT LEAST EIGHT
PILOT WHALES OFF SOUTHERN CALIFORNIA IN NOVEMBER OF 1977.
SUGGESTS THAT THE DEATHS MAY BE THE RESULT OF HUMAN ACTIVITY
SUCH AS INVOLVEMENT WITH COMMERCIAL SQUID FISHERMEN. (F)

678. REILLY, S.B. 1977. THE DISTRIBUTION OF PILOT WHALES GLOBI-
CEPHALA MACRORHYNCHUS GRAY, 1846, IN THE EASTERN TROPICAL
PACIFIC. M.SC. THESIS, CALIF. POLYTECHNIC STATE UNIV.,
SAN LUIS OBISPO. 79 P.

DISCUSSES CERTAIN AREAS WHERE PILOT WHALES ARE RELATIVELY
ABUNDANT, WHICH ARE REFERRED TO AS POPULATION CENTERS. THE
MOST CONCENTRATED PORTION OF THE CALIFORNIA CENTER IS SOUTH
OF POINT CONCEPTION. NORTH OF POINT CONCEPTION THERE ARE
RELATIVELY FEWER PILOT WHALE SIGHTINGS, UP TO ABOUT SAN
FRANCISCO BAY. NORTH OF POINT CONCEPTION THERE ARE A TOTAL
OF 81 SIGHTINGS AVAILABLE, AND MOST OCCURRED IN THE MONTHS
OF JANUARY AND FEBRUARY. (D)

GLOBICEPHALA

679. REILLY, S.B. 1977. PILOT WHALES. DEPT. BIO. SCI., CALIF. POLYTECHNIC STATE UNIV., SAN LUIS OBISPO, CALIF. (FOR PACIFIC SEARCH PRESS, IMPENDING BOOK ON THE MARINE MAMMALS OF THE EASTERN PACIFIC).

DISCUSSES OVERALL DISTRIBUTION AND STATES THAT ALONG THE PACIFIC COAST OF NORTH AMERICA, PILOT WHALES ARE MOST ABUNDANT SOUTH OF PT. CONCEPTION. IN SOUTHERN CALIFORNIA THE DISTRIBUTION OF PILOT WHALES HAS BEEN SHOWN TO RELATE TO THE AVAILABILITY OF SQUID. NOTES THAT THE REPRODUCTIVE BIOLOGY OF THE PACIFIC PILOT WHALE IS LARGELY UNKNOWN BUT PRESENTS DATA FROM THE PILOT WHALES OF NEWFOUNDLAND WATERS AS A POSSIBLE MODEL.

(D,R)

680. RICE, D.W. 1963. THE WHALE MARKING CRUISE OF THE SIOUX CITY OFF CALIFORNIA AND BAJA CALIFORNIA. NORSK HVAL.-TID. 52(6):153-160.

CONTAINS SIGHTING RECORDS OF PILOT WHALES AROUND SAN CLEMENTE ISLAND IN NOVEMBER 1962. POSITIONS OF SIGHTINGS ARE GIVEN.

(D)

681. SERGEANT, D.E. 1959. ON THE EVOLUTION OF LIFE HISTORIES IN THE DELPHINIDAE. SECTION: 8 SEPT. 1959. POPULATIONS OF THE SEA. 3. EVOLUTION AND ADAPTATION IN THE SEA. FISH. RES. BD. CAN., MONTREAL.

DISCUSSES THE RELATIVE BODY LENGTHS OF THE SEXES, LENGTHS AND AGES AT SEXUAL MATURITY, AND REPRODUCTIVE FREQUENCY FOR GLOBICEPHALA. NOTES THAT A MATURE FEMALE PROBABLY CALVES ONCE EVERY THREE YEARS.

(R)

682. SERGEANT, D.E. 1962. THE BIOLOGY OF THE PILOT WHALE OR POT-HEAD WHALE GLOBICEPHALA MELAENA (TRAILL) IN NEWFOUNDLAND WATERS. FISH. RES. BD. CAN., BULL. 132, 84 P.

EXCELLENT SOURCE ON PRODUCTIVITY AND NATURAL MORTALITY IN PILOT WHALES. RESEARCH WAS CONDUCTED FROM 1952-1954 WITH ADDITIONAL INFORMATION GATHERED IN 1956, 1957, AND 1959. DATA INCLUDES LENGTH AND AGE AT SEXUAL MATURITY, TIME OF BIRTH, LENGTH OF GESTATION, PREGNANCY RATE, AND NATURAL MORTALITY RATES FOR BOTH SEXES FROM AGE 1 TO AGE 8.

(M,R)

683. U.S. DEPARTMENT OF COMMERCE. 1978. REPORT OF THE SECRETARY OF COMMERCE ON ADMINISTRATION OF THE MARINE MAMMAL PROTECTION ACT OF 1972. ANNUAL REPORT, APRIL 1, 1977 TO MARCH 31, 1978. PREPARED BY NOAA/NMFS. 183 P.

GLOBICEPHALA

PAGE 155 BRIEFLY DISCUSSES THE OVERALL DISTRIBUTION OF GLOBICEPHALA MACRORHYNCHUS. NOTES THAT THIS SPECIES IS FAIRLY ABUNDANT AROUND THE CHANNEL ISLANDS. ALSO NOTES THAT THE GENERAL REPRODUCTIVE BIOLOGY IS PROBABLY SIMILAR TO G. MELAENA. COWS PROBABLY BEAR CALVES EVERY THREE YEARS.

(D,R)

684. WOOD, R. 1964. FLIGHT REPORT 64-5, PELAGIC FISH. THE RESOURCES AGENCY OF CALIF., DEPT. FISH & GAME, MARINE RESOURCE OPERATIONS, CALIF. STATE FISH. LAB., TERMINAL IS., CALIF.

DURING AERIAL SURVEY OF PELAGIC FISH SCHOOLS IN FEBRUARY 1964, OVER 100 PILOT WHALES COMPRISING 15 SCHOOLS WERE SIGHTED ALONG THE WESTERN SIDE OF SANTA CATALINA ISLAND. TWO PILOT WHALES WERE ALSO SIGHTED NEAR SAN CLEMENTE ISLAND.

(D)

685. WOOD, R. 1964. FLIGHT REPORT 64-8, PELAGIC FISH. THE RESOURCES AGENCY OF CALIF., DEPT. FISH & GAME, MARINE RESOURCE OPERATIONS, CALIF. STATE FISH. LAB., TERMINAL IS., CALIF.

DURING AERIAL SURVEY OF PELAGIC FISH SCHOOLS IN MAY 1964, INDIVIDUAL PILOT WHALES WERE SEEN NEAR SANTA MONICA AND POINT SUR. MAP INCLUDED.

(D)

GRAMPUS GRISEUS - RISSO'S DOLPHIN

686. AINLEY, D.G., H.R. HUBER, R.P. HENDERSON, AND T.J. LEWIS. 1977. STUDIES OF MARINE MAMMALS AT THE FARALLON ISLANDS, CALIFORNIA, 1970-1975. MARINE MAMMAL COMMISSION REPORT MMC-74/04 NTIS PB 274 046. 42 P.

A RISSO'S DOLPHIN WASHED ASHORE ON MAY 20, 1973. (D)

687. BALDRIDGE, A. 1972. MONTEREY BAY REGION MARINE MAMMAL OBSERVATIONS. PP. 57-60. IN STANFORD UNIV. HOPKINS MAR. STN., PAC. GROVE, CALIF., ANN. REP., 1971. CALCOFI HYDROGRAPHIC DATA.

CONTAINS SIGHTING RECORD OF 6-7 ANIMALS THOUGHT TO BE RISSO'S DOLPHIN BUT NOT CONFIRMED. (D)

688. LEATHERWOOD, S., W.F. PERRIN, V.L. KIRBY, C.L. HUBBS, AND M. DAHLHEIM. DISTRIBUTION AND MOVEMENTS OF RISSO'S DOLPHIN, GRAMPUS GRISEUS, IN THE EASTERN NORTH PACIFIC BASED ON COLLECTIONS AND SIGHTING RECORDS (1872-1975). BIOMEDICAL DIV., NAVAL OCEANS SYSTEM CENTER, SAN DIEGO, CALIF. 45 P.

22 STRANDING/COLLECTIONS AND 210 SIGHTING RECORDS ARE DISCUSSED FROM THE EASTERN NORTH PACIFIC. WHEN AVAILABLE, LEVELS OF EFFORT HAVE BEEN IDENTIFIED AND UTILIZED TO INTERPRET TRENDS IN DISTRIBUTION AND MOVEMENT. INCLUDES DATA OBTAINED FROM NEARSHORE AND OFFSHORE CENTRAL AND SOUTHERN CALIFORNIA. CONTAINS A SUMMARY OF SIGHTINGS OF RISSO'S DOLPHINS OFF SOUTHERN CALIFORNIA FROM 1958-1975, SHOWING THE FREQUENCY OF ENCOUNTER ON THE INSHORE OR OFFSHORE SIDE OF THE CONTINENTAL SHELF. ALSO CONTAINS A SUMMARY OF ALL SIGHTINGS INCLUDING DATE, LOCATION, AND NUMBER OF ANIMALS OBSERVED. (D,E)

689. MOREJOHN, G.V. GRAMPUS GRISEUS. MOSS LANDING MARINE LAB., MOSS LANDING, CALIF. (UNPUBL. NOTES).

NOT SEEN.

690. NISHIWAKI, M. 1972. GENERAL BIOLOGY. PP. 3-204. IN (RIDGWAY, S.H., ED.), MAMMALS OF THE SEA. BIOLOGY AND MEDICINE. SPRINGFIELD, IL: C.C. THOMAS.

PAGES 123-125 BRIEFLY DISCUSS DISTRIBUTION AND MORPHOLOGY OF RISSO'S DOLPHIN. NOTES MAIN FOOD ITEM IS SQUID. (D)

691. ORR, R.T. 1966. RISSO'S DOLPHIN ON THE PACIFIC COAST OF NORTH AMERICA. J. MAMMAL. 47(2):341-343.

GRAMPUS

RECORD OF A RISSO'S DOLPHIN SHOT BY A FISHERMAN IN 1963 NEAR
SAN MATEO COUNTY, CALIFORNIA. IT WAS ONE OF SEVERAL OBSERVED
CIRCLING THE FISHERMAN'S BOAT.

(D,F)

692. U.S. DEPARTMENT OF COMMERCE. 1978. REPORT OF THE SECRETARY OF
COMMERCE ON ADMINISTRATION OF THE MARINE MAMMAL PROTECTION
ACT OF 1972. ANNUAL REPORT, APRIL 1, 1977 TO MARCH 31,
1978. PREPARED BY NOAA(NMFS). 183 P.

PAGE 149 BRIEFLY DISCUSSES THE OVERALL DISTRIBUTION, ABUNDANCE
AND GENERAL BIOLOGY OF RISSO'S DOLPHIN. NOTES THAT THE SPECIES
IS UNCOMMON BUT NOT RARE THROUGHOUT MOST OF ITS RANGE.

(D)

KOGIA BREVICEPS - PYGMY SPERM WHALE

693. ALLEN, G.M. 1941. PYGMY SPERM WHALE IN THE ATLANTIC. FIELD MUS. NAT. HIST., CHICAGO (ZOOLOG.) 27:17-36.

CONTAINS A BRIEF DISCUSSION REGARDING BREEDING AND YOUNG. (R)

694. BALDRIDGE, A. 1971. OBSERVATIONS OF MARINE MAMMALS. PP. 47-49. IN STANFORD UNIV. HOPKINS MAR. STN., PAC. GROVE, CALIF., ANN. REP., 1970. CALCOFI HYDROGRAPHIC DATA.

CONTAINS TWO STRANDING RECORDS OF PYGMY SPERM WHALES IN THE MONTEREY BAY AREA. (D)

695. BUREAU OF LAND MANAGEMENT. 1975. MARINE MAMMALS. PP. 407-445. IN FINAL ENVIRONMENTAL STATEMENT PROPOSED 1975 OUTER CONTINENTAL SHELF OIL AND GAS GENERAL LEASE SALE OFFSHORE SOUTHERN CALIFORNIA. VOL. 1 OF 5. U.S. DEPT. INTER.

PAGES 419-420 DISCUSS OVERALL DISTRIBUTION, STUDY AREA SIGHTINGS, AND LIFE HISTORY OF THE PYGMY SPERM WHALE. NOTES THAT VERY LITTLE INFORMATION IS AVAILABLE ON POPULATION SIZE. BREEDING IS THOUGHT TO OCCUR IN LATE SUMMER WITH PARTURITION TAKING PLACE IN THE SPRING AFTER ONLY NINE MONTHS. (D)

696. FITCH, J.E. AND R.L. BROWNELL. 1968. FISH OTOLITHS IN CETACEAN STOMACHS AND THEIR IMPORTANCE IN INTERPRETING FEEDING HABITS. J. FISH. RES. BD. CAN. 25(12):2561-2574.

THREE STOMACHS OF THE PYGMY SPERM WHALE COLLECTED OFF TAIJI, JAPAN IN JULY 1967 SHOW A DEPENDENCY ON MESOPELAGIC FISH. MENTIONS THAT FUTURE UNCONTROLLED HARVEST OF FISH FROM THE SCATTERING LAYER COULD HAVE DISASTROUS EFFECTS ON OUR DOLPHIN, PORPOISE, AND WHALE POPULATIONS. (F)

697. HANDLEY, C.O. JR. 1966. A SYNOPSIS OF THE GENUS KOGIA (PYGMY SPERM WHALES). PP. 62-69. IN (NORRIS, K.S., ED.), WHALES, DOLPHINS, AND PORPOISES. BERKELEY AND LOS ANGELES: UNIV. CALIF. PRESS.

DISCUSSES MORPHOLOGY, ABUNDANCE, DISTRIBUTION, BIOLOGY AND TAXONOMY OF DIFFERENT SPECIES OF KOGIA. NOTES THAT THE PYGMY SPERM WHALE IS RARE AND THAT THERE IS LITTLE INFORMATION AVAILABLE ON REPRODUCTION. (D,P,R)

698. HIRASAKA, K. 1937. ON THE PYGMY SPERM WHALE, KOGIA BREVICEPS (BLAINVILLE). MEM. FAC. SCI. & AGRIC., TAIHOKU IMP. UNIV., 14, NO. 5 (ZOOLOG. NO. 7):17-142.

NOT SEEN.

KOGIA

699. HUBBS, C.L. 1951. EASTERN PACIFIC RECORDS AND GENERAL DISTRIBUTION OF THE PYGMY SPERM WHALE. J. MAMMAL. 32(4):403-410.

DISCUSSES TWO STRANDINGS IN CALIFORNIA, ONE OCCURRING IN SEPTEMBER 1936 AND THE OTHER OCCURRING IN DECEMBER 1949. THESE TWO RECORDS NICELY BRIDGE THE BROAD GAP BETWEEN THE PREVIOUSLY REPORTED REGIONS OF OCCURRENCE IN THE GULF OF CALIFORNIA AND WASHINGTON.

(D)

700. MOREJOHN, G.V. 1977. FEEDING ECOLOGY OF MARINE MAMMALS IN MONTEREY BAY, CALIFORNIA (ABSTRACT). PROCEEDINGS OF THE SECOND CONFERENCE ON THE BIOLOGY OF MARINE MAMMALS. SAN DIEGO, CALIF., DEC. 12-15, 1977.

STOMACH CONTENTS WERE COLLECTED FROM DEAD, BEACH-CAST, OR STRANDED CETACEANS. ANALYSIS SHOWED THAT THE PYGMY SPERM WHALE FED ENTIRELY ON CEPHALOPODS.

(D)

701. NISHIWAKI, M. 1972. GENERAL BIOLOGY, PP. 3-204. IN (RIDGWAY, S.H., ED.), MAMMALS OF THE SEA. BIOLOGY AND MEDICINE. SPRINGFIELD, IL: C.C. THOMAS.

PAGES 41-43 BRIEFLY DISCUSS THE OVERALL DISTRIBUTION, MORPHOLOGY, AND REPRODUCTION OF THE PYGMY SPERM WHALE. NOTES THAT THIS SMALL CETACEAN IS FOUND IN TEMPERATE WATERS OF THE NORTH PACIFIC BUT IS RARELY SEEN.

(D)

702. ODELL, D.K. AND E.D. ASPER. STUDIES ON THE BIOLOGY OF KOGIA (CETACEA: PHYSETERIDAE) IN FLORIDA. PRELIMINARY REPORT. IWC SUBCOMM. ON SMALL CETACEANS, SCI. COMM., INTER. WHALING COMM., LONDON, L-10, 11 P.

CONTAINS A BRIEF DISCUSSION ON 12 STRANDINGS OF THE PYGMY SPERM WHALE BETWEEN MARCH 1974 AND MAY 1976. DATA INCLUDES POSSIBLE MATING AND CALVING TIMES. STOMACH SAMPLES SHOW THAT THEY FED MOSTLY ON SQUID.

(R)

703. U.S. DEPARTMENT OF COMMERCE. 1978. REPORT OF THE SECRETARY OF COMMERCE ON ADMINISTRATION OF THE MARINE MAMMAL PROTECTION ACT OF 1972. ANNUAL REPORT, APRIL 1, 1977 TO MARCH 31, 1978. PREPARED BY NOAA/NMFS. 183 P.

PAGE 169 DISCUSSES THE OVERALL DISTRIBUTION, ABUNDANCE, AND GENERAL BIOLOGY OF PYGMY SPERM WHALES. NOTES THAT FEMALES SIMULTANEOUSLY PREGNANT AND LACTATING HAVE BEEN FOUND, SUGGESTING THAT THEY MAY BEAR A CALF TWO YEARS IN SUCCESSION.

(D,R)

LAGENORHYNCHUS OBLIQUIDENS - PACIFIC WHITE-SIDED DOLPHIN

704. BALDRIDGE, A. 1969. MARINE MAMMALS. IN STANFORD UNIV. HOPKINS MAR. STN., PAC. GROVE, CALIF., ANN. REP., 1969. CALCOFI HYDROGRAPHIC DATA.

CONTAINS A SIGHTING RECORD OF SIX PACIFIC WHITE-SIDED DOLPHIN IN MONTEREY BAY. (D)

705. BALDRIDGE, A. 1971. OBSERVATIONS OF MARINE MAMMALS. PP. 47-49. IN STANFORD UNIV. HOPKINS MAR. STN., PAC. GROVE, CALIF., ANN. REP., 1970. CALCOFI HYDROGRAPHIC DATA.

CONTAINS SIGHTING RECORDS OF PACIFIC WHITE-SIDED DOLPHIN IN MONTEREY BAY. (D)

706. BALDRIDGE, A. 1972. MONTEREY BAY REGION MARINE MAMMAL OBSERVATIONS. PP. 57-60. IN STANFORD UNIV. HOPKINS MAR. STN., PAC. GROVE, CALIF., ANN. REP., 1971. CALCOFI HYDROGRAPHIC DATA.

CONTAINS SIGHTING RECORDS OF PACIFIC WHITE-SIDED DOLPHIN. (D)

707. BALDRIDGE, A. 1973. MONTEREY BAY REGION MARINE MAMMAL OBSERVATIONS. PP. 30-33. IN STANFORD UNIV. HOPKINS MAR. STN., PAC. GROVE, CALIF., ANN. REP., 1972. CALCOFI HYDROGRAPHIC DATA.

CONTAINS SIGHTING RECORDS OF PACIFIC WHITE-SIDED DOLPHIN. (D)

708. BARHAM, E. 1978. HISTORICAL MARINE MAMMAL SIGHTINGS IN MONTEREY BAY. U.S. DEPT. COMMER., NOAA/NMFS, SOUTHWEST FISHERIES CENTER, LA JOLLA, CALIF. 18 P. (UNPUBL. MANUSCR.).

CONTAINS INFORMATION ON MARINE MAMMAL SIGHTINGS IN MONTEREY BAY DURING 1950-1955. INCLUDES A TABLE WITH THE TOTAL NUMBER OF SIGHTINGS FOR 15 SPECIES OF MARINE MAMMALS ON A YEARLY BASIS. INFORMATION ON LAGENORHYNCHUS INCLUDES HERD SIZE FREQUENCY, SEASONAL DISTRIBUTION, AND APPROXIMATE DISTANCE FROM SHORE AND DEPTH OF WATER AT TIME OF SIGHTING. NOTES THAT LAGENORHYNCHUS WAS THE SECOND MOST COMMON MARINE MAMMAL SIGHTED. (D)

709. BUREAU OF LAND MANAGEMENT. 1975. MARINE MAMMALS. PP. 407-445. IN FINAL ENVIRONMENTAL STATEMENT PROPOSED 1975 OUTER CONTINENTAL SHELF OIL AND GAS GENERAL LEASE SALE OFFSHORE SOUTHERN CALIFORNIA. VOL 1 OF 5. U.S. DEPT. INTER.

PAGE 424 DISCUSSES OVERALL DISTRIBUTION, ABUNDANCE, LIFE HISTORY, AND DISEASES OF THE PACIFIC WHITE-SIDED DOLPHIN. MENTIONS THAT (D,P)

LAGENORHYNCHUS

THIS DOLPHIN IS THE SECOND MOST ABUNDANT ODONTOCETI FROM POINT CONCEPTION TO ENSENADA.

710. DEARBORN, J.H. 1968. AN UNUSUAL LEAP BY A PACIFIC WHITE-SIDED DOLPHIN (*LAGENORHYNCHUS OBLIQUIDENS*). J. MAMMAL. 49(2): 328-329.

RECORDED SIGHTING OF 20 DOLPHIN IN MONTEREY BAY IN SEPTEMBER OF 1958. (D)

711. EVANS, W.E., J.D. HALL, A.B. IRVINE, AND J.S. LEATHERWOOD. 1972. METHOD FOR TAGGING SMALL CETACEANS. FISH. BULL., U.S. 70(1):61-65.

10 PACIFIC WHITE-SIDED DOLPHIN WERE SPAGHETTI TAGGED IN AN AREA FROM PT. CONCEPTION, CALIFORNIA, TO CABO SAN LUCAS, BAJA CALIFORNIA. (D)

712. FITCH, J.E., AND R.L. BROWNELL. 1968. FISH OTOLITHS IN CETACEAN STOMACHS AND THEIR IMPORTANCE IN INTERPRETING FEEDING HABITS. J. FISH. RES. BD. CAN. 25(12):2561-2574.

THE STOMACHS OF TWO PACIFIC WHITE-SIDED DOLPHIN COLLECTED NEAR LOS ANGELES, CALIFORNIA IN 1963 AND 1967 WERE STUDIED. ONE WAS ALMOST EMPTY BUT THE OTHER WAS GORGED WITH PACIFIC HAKE AND CEPHALOPOD REMAINS. MENTIONS THAT FUTURE UNCONTROLLED HARVEST OF FISH FROM THE SCATTERING LAYER COULD HAVE A DISASTROUS EFFECT ON OUR PORPOISE, DOLPHIN, AND WHALE POPULATIONS. (D,F)

713. HARRISON, R.J., R.C. BOICE, AND R.L. BROWNELL. 1969. REPRODUCTION IN WILD AND CAPTIVE CETACEANS. NATURE, (LONDON), 222(5199):1143-1147.

GONADAL CHANGES AND CHARACTERISTICS OF THE CORPORA ALBANTICA PROVIDE INFORMATION ON REPRODUCTIVE ACTIVITIES IN PACIFIC WHITE-SIDED DOLPHIN. INCLUDES INFORMATION ABOUT BIRTH, SEX ORGANS, TIME OF MATING, AND DIFFERENCES IN AGE. (R)

714. HIGGINS, E. 1919. PORPOISE CAPTURED. CALIF. FISH & GAME 5(3): 157.

RECORDED SIGHTING ACCOUNT OF APPROXIMATELY 12 WHITE-SIDED DOLPHIN, ONE OF WHICH WAS SHOT AND KILLED. (D)

715. HOUCK, W.J. 1961. NOTES ON THE PACIFIC STRIPED PORPOISE. J. MAMMAL. 42(1):107.

LAGENORHYNCHUS

- BRIEF ACCOUNT OF A DEAD PACIFIC WHITE-SIDED DOLPHIN WASHED ASHORE IN HUMBOLDT COUNTY, CALIFORNIA IN 1958. (D)
716. JACKSON, R.A. 1972. A SEA MAMMAL TOUR. AUGUST 20, 1972, SAN FRANCISCO SUNDAY EXAMINER & CHRONICLE (CALIF. LIVING MAG.).
- BRIEF ACCOUNT OF WHEN AND WHERE TO SEE PACIFIC WHITE-SIDED DOLPHIN ALONG THE NORTHERN CALIFORNIA COAST. INCLUDES A MAP. (D)
717. JOHNSTON, D.G. AND S.H. RIDGWAY. PARASITISM IN SOME MARINE MAMMALS. J. VET. MED. ASSOC. 155(7):1064-1072.
- NOTES THE CAPTURE OF A MATURE FEMALE WHITE-SIDED DOLPHIN IN THE SANTA BARBARA CHANNEL. (D)
718. JONSGARD, A. AND O. NORDLI. 1952. CONCERNING A CATCH OF WHITE-SIDED DOLPHINS (LAGENORHYNCHUS ACUTUS) ON THE WEST COAST OF NORWAY, WINTER 1952. NORSK HVAL.-TID. 41(5):229-232.
- MENTIONS A GESTATION PERIOD OF 10 MONTHS WITH MATING IN AUTUMN AND BIRTH OF YOUNG IN SUMMER. GIVES LENGTH OF CALF AT BIRTH AS 1 METER. (R)
719. MOREJOHN, G.V. 1977. FEEDING ECOLOGY OF MARINE MAMMALS IN MONTEREY BAY, CALIFORNIA (ABSTRACT). PROCEEDINGS OF THE SECOND CONFERENCE ON THE BIOLOGY OF MARINE MAMMALS. SAN DIEGO, CALIF., DEC. 12-15, 1977.
- STOMACH CONTENTS WERE COLLECTED FROM DEAD, BEACH-CAST, OR STRANDED CETACEANS. ANALYSIS SHOWED THAT THE PACIFIC WHITE-SIDED DOLPHIN FED MAINLY ON ANCHOVY, MIDSHIPMEN, SPOTTED CUSK EEL, HAKE, ROCKFISH, FLATFISH, AND CEPHALOPODS. COMPARISON OF DIET WITH OTHER CETACEANS IS DISCUSSED. (D)
720. MOREJOHN, G.V. LAGENORHYNCHUS OBLIQUIDENS. MOSS LANDING MARINE LAB., MOSS LANDING, CALIF. (UNPUBL. MANUSCR.).
- NOT SEEN.
721. NISHIWAKI, M. 1972. GENERAL BIOLOGY, PP. 3-204. IN (RIDGWAY, S.H., ED.), MAMMALS OF THE SEA. BIOLOGY AND MEDICINE. SPRINGFIELD, IL: C.C. THOMAS.
- PAGES 88-96 BRIEFLY DISCUSS THE OVERALL DISTRIBUTION, ABUNDANCE, AND REPRODUCTION OF PACIFIC WHITE-SIDED DOLPHINS WITH REFERENCE TO RELATED SPECIES. (D)

LAGENORHYNCHUS

722. NORRIS, K.S. AND J.H. PRESCOTT. 1961. OBSERVATIONS ON PACIFIC CETACEANS OF CALIFORNIA AND MEXICAN WATERS. UNIV. OF CALIF. PUBL. IN ZOOLOGY. 63:291-370.

PAGES 326-330 DISCUSS RANGE, SIGHTING RECORDS, LOCALITIES OF CAPTURE, AND REPRODUCTION IN SOUTHERN CALIFORNIA FOR THE PACIFIC WHITE-SIDED DOLPHIN. CONTAINS A MAP OF SIGHTINGS.

(D)

723. RICE, D.W. 1963. THE WHALE MARKING CRUISE OF THE SIOUX CITY OFF CALIFORNIA AND BAJA CALIFORNIA. NORSK HVAL.-TID. 52(6):153-160.

CONTAINS SIGHTING RECORDS OF APPROXIMATELY 113 PACIFIC WHITE-SIDED DOLPHIN IN SIX SCHOOLS IN NOVEMBER 1962. POSITIONS OF SIGHTINGS ARE GIVEN.

(D)

724. RIDGWAY, S.H. AND R.F. GREEN. 1967. EVIDENCE FOR A SEXUAL RHYTHM IN MALE PORPOISES, LAGENORHYNCHUS OBLIQUIDENS AND DELPHINUS DELPHIS BAIRDI. NORSK HVAL.-TID. 56(1):1-8.

MENTIONS PEAK BREEDING SEASON OF MID TO LATE SUMMER FOR PORPOISES FOUND OFF CENTRAL AND SOUTHERN CALIFORNIA. DATA WAS OBTAINED FROM FOUR PACIFIC WHITE-SIDED DOLPHINS AND FIVE COMMON DOLPHINS COLLECTED OFF THE CALIFORNIA COAST.

(D,R)

725. SCHEFFER, V.B. 1950. THE STRIPED DOLPHIN, LAGENORHYNCHUS OBLIQUIDENS GILL 1865, ON THE COAST OF NORTH AMERICA. AM. MID. NAT. 44(3):750-758.

CONTAINS 32 RECORDS OF STRIPED DOLPHIN IN AMERICAN WATERS WITH A BRIEF OVERVIEW OF REPRODUCTION.

(D)

726. SCHEFFER, V.B. 1953. MEASUREMENTS AND STOMACH CONTENTS OF ELEVEN DELPHINIDS FROM THE NORTHEAST PACIFIC. MURRELET 34(2):27-30.

A MALE LAGENORHYNCHUS WAS SHOT NEAR ANACAPA ISLAND IN 1952. THE CONTENTS OF ITS STOMACH CONSISTED OF 85% JELLYFISH AND 15% SQUID.

(D)

727. U.S. DEPARTMENT OF COMMERCE. 1978. REPORT OF THE SECRETARY OF COMMERCE ON ADMINISTRATION OF THE MARINE MAMMAL PROTECTION ACT OF 1972. ANNUAL REPORT, APRIL 1, 1977 TO MARCH 31, 1978. PREPARED BY NOAA/NMFS. 183 P.

PAGES 145-146 DISCUSS THE OVERALL DISTRIBUTION, MIGRATION, AND GENERAL BIOLOGY OF THE PACIFIC WHITE-SIDED DOLPHIN. NOTES THAT THIS DOLPHIN IS FOUND YEAR ROUND OFF CALIFORNIA.

(D)

LISSODELPHIS BOREALIS - NORTHERN RIGHT WHALE DOLPHIN

728. BUREAU OF LAND MANGEMENT. 1975. MARINE MAMMALS. PP. 407-445.
IN FINAL ENVIRONMENTAL STATEMENT PROPOSED 1975 OUTER CON-
TINENTAL SHELF OIL AND GAS GENERAL LEASE SALE OFFSHORE
SOUTHERN CALIFORNIA. VOL 1 OF 5. U.S. DEPT. INTER.

PAGE 425 DISCUSSES OVERALL RANGE, SIGHTINGS, AND POPULATION SIZE
OF THE NORTHERN RIGHT WHALE DOLPHIN. MENTIONS THAT THIS DOLPHIN
IS THE THIRD MOST ABUNDANT ODONTOCETI FROM PT. CONCEPTION TO
ENSENADA.

(D,P)

729. FITCH, J.E. AND R.L. BROWNELL. 1968. FISH OTOLITHS IN CETACEAN
STOMACHS AND THEIR IMPORTANCE IN INTERPRETING FEEDING HABITS.
J. FISH. RES. BD. CAN. 25(12):2561-2574.

DATA FROM AN ADULT NORTHERN RIGHT WHALE DOLPHIN STRANDED
NOVEMBER 8, 1967 NEAR IMPERIAL BEACH, CALIFORNIA, SHOWED THAT
NEARLY 97% OF THE 152 OTOLITHS FOUND IN THE STOMACH WERE FROM
LANTERNFISH. SQUID BEAKS AND A MULTITUDE OF LENSES WERE ALSO
FOUND. NOTES DEPENDENCY OF THE SMALLER CETACEANS ON MESO-
PELAGIC FISHES.

(D)

730. LEATHERWOOD, S. AND R.F. GREEN. THE RIGHT WHALE DOLPHINS,
LISSODELPHIS SPP.: A SYNOPTIC ACCOUNT OF THE GENUS. IN
(RIDGWAY, S.H. AND R.J. HARRISON, EDS.), A HANDBOOK OF
MARINE MAMMALS OF THE WORLD. LONDON: ACADEMIC PRESS.
(IN PRESS).

NOT SEEN.

731. LEATHERWOOD, S. AND W.A. WALKER. 1977. THE NORTHERN RIGHT WHALE
DOLPHIN LISSODELPHIS BOREALIS PEALE IN THE EASTERN NORTH
PACIFIC. IN (WINN, H.E. AND B.L. OLLA, EDS.), BEHAVIOR
OF MARINE MAMMALS. VOL. III - CETACEA. NEW YORK: PLENUM
PRESS. (IN PRESS).

CONTAINS A DETAILED DISCUSSION ON THE DISTRIBUTION, SEASONAL
MOVEMENT, ABUNDANCE, FOOD HABITS, AND REPRODUCTION OF LISSO-
DELPHIS. INCLUDES PUBLISHED RECORDS OF LISSODELPHIS IN THE
EASTERN NORTH PACIFIC FROM 1848-1976 AND PREVIOUSLY UNPUBLISHED
SIGHTINGS FROM 1961-1976. SIGHTING RECORDS INCLUDE DATE, LOCA-
TION, AND NUMBER OF ANIMALS OBSERVED. ALSO INCLUDES STRANDING
RECORDS FROM 1956-1974, MAPS OF SIGHTINGS OFF CALIFORNIA, EFFORT
RECORD BASED ON NUMBER OF SIGHTINGS PER 100 SQUARE MILES, AND
ESTIMATED HERD SIZES.

(D,E,P,R)

732. NISHIWAKI, M. 1972. GENERAL BIOLOGY. PP. 3-204. IN (RIDGWAY,
S.H., ED.), MAMMALS OF THE SEA. BIOLOGY AND MEDICINE.
SPRINGFIELD, IL: C.C. THOMAS.

LISSODELPHIS

PAGES 73-75 DISCUSS THE OVERALL DISTRIBUTION AND ABUNDANCE OF NORTHERN RIGHT WHALE DOLPHINS WITH REFERENCE TO RELATED SPECIES. (D)

733. NORRIS, K.S. AND J.H. PRESCOTT. 1961. OBSERVATIONS ON PACIFIC CETACEANS OF CALIFORNIA AND MEXICAN WATERS. UNIV. OF CALIF. PUBL. IN ZOOL. 63:291-370.

PAGES 323-326 DISCUSS RANGE, SIGHTINGS, AND CAPTURE OBSERVATIONS OF THE NORTHERN RIGHT WHALE DOLPHIN. (D)

734. U.S. DEPARTMENT OF COMMERCE. 1978. REPORT OF THE SECRETARY OF COMMERCE ON ADMINISTRATION OF THE MARINE MAMMAL PROTECTION ACT OF 1972. ANNUAL REPORT, APRIL 1, 1977 TO MARCH 31, 1978. PREPARED BY NOAA/NMFS. 183 P.

PAGES 147-148 DISCUSS THE DISTRIBUTION, MIGRATION, ABUNDANCE, AND GENERAL BIOLOGY OF NORTHERN RIGHT WHALE DOLPHINS. MENTIONS THAT HERDS OF UP TO 2000 ANIMALS HAVE BEEN SEEN OFF SOUTHERN CALIFORNIA. (D)

MESOPLODON SP. - BEAKED WHALES

735. BUREAU OF LAND MANAGEMENT. 1975. MARINE MAMMALS. PP. 407-445.
IN FINAL ENVIRONMENTAL STATEMENT PROPOSED 1975 OUTER CONTINENTAL SHELF OIL AND GAS GENERAL LEASE SALE OFFSHORE SOUTHERN CALIFORNIA. VOL. 1 OF 5. U.S. DEPT. OF INTER.

PAGE 418 BRIEFLY MENTIONS OVERALL DISTRIBUTION AND OCCASIONAL STRANDINGS OF MESOPLODON CARLHUBBSI. NOTES THAT THIS SPECIES IS CONSIDERED RARE THROUGHOUT ITS RANGE AND THAT NO INFORMATION IS AVAILABLE ON POPULATION SIZE OR LIFE HISTORY. (D)

736. HUBBS, C.L. 1946. FIRST RECORDS OF TWO BEAKED WHALES, MESOPLODON BOWDOINI AND ZIPHIUS CAVIROSTRIS, FROM THE PACIFIC COAST OF THE U.S. J. MAMMAL. 27(3):242-255.

RECORD OF A MESOPLODON WASHED ASHORE IN LA JOLLA, CALIFORNIA ON JULY 25, 1945. (D)

737. MOORE, J.C. 1963. RECOGNIZING CERTAIN SPECIES OF BEAKED WHALES OF THE PACIFIC OCEAN. AM. MID. NAT. 70(2):396-428.

DISCUSSES THE MORPHOLOGY AND GEOGRAPHIC DISTRIBUTION OF THREE SPECIES OF MESOPLODON FOUND IN THE PACIFIC OCEAN. CONTAINS A LIST OF STRANDINGS IN THE NORTH TEMPERATE PACIFIC AND A MAP OF STRANDINGS FOR THE ENTIRE PACIFIC. (D)

738. MOORE, J.C. 1965. A BEAKED WHALE NEW TO THE WESTERN HEMISPHERE. NATURE, (LONDON), 205(4977):1239-1240.

DISCUSSES THE FIRST KNOWN STRANDING OF MESOPLODON GINKODENS IN THE EASTERN NORTH PACIFIC IN JUNE 1954. STRANDING OCCURRED AT DEL MAR, CALIFORNIA. (D)

739. MOORE, J.C. 1966. DIAGNOSES AND DISTRIBUTIONS OF BEAKED WHALES OF THE GENUS MESOPLODON KNOWN FROM NORTH AMERICAN WATERS. PP. 32-61. IN (NORRIS, K.S., ED.), WHALES, DOLPHINS, AND PORPOISES. BERKELEY AND LOS ANGELES: UNIV. CALIF. PRESS.

DISCUSSES SKULL MORPHOLOGY AND THE APPARENT DISTRIBUTION BASED ON STRANDINGS OF SIX SPECIES OF MESOPLODON. INCLUDES M. CARLHUBBSI. (D)

740. MOREJOHN, G.V. MESOPLODON CARLHUBBSI. MOSS LANDING MARINE LAB., MOSS LANDING, CALIF. (UNPUBL. MANUSCR.).

NOT SEEN.

MESOPLODON

741. NISHWAKI, M. 1972. GENERAL BIOLOGY. PP. 3-204. IN (RIDGWAY, S.H., ED.), MAMMALS OF THE SEA. BIOLOGY AND MEDICINE. SPRINGFIELD, IL: C.C. THOMAS.

PAGES 54-64 BRIEFLY DISCUSS DISTRIBUTION, MORPHOLOGY, AND REPRODUCTION OF MESOPLODON SP. INCLUDES THREE SPECIES KNOWN TO OCCUR IN THE NORTH PACIFIC.

(D)

742. NISHIWAKI, M., T. KASUYA, K. KUREHA, AND N. OGURO. 1972. FURTHER COMMENTS ON MESOPLODON GINKODENS. WHALES RES. INST., SCI. REP. 24:43-56.

BRIEFLY DISCUSSES EXTERNAL APPEARANCE, INNER ORGANS, AND OSTEOLOGY OF TWO BEAKED WHALE SPECIMENTS FROM JAPAN.

743. ORR, R.T. 1953. BEAKED WHALE (MESOPLODON) FROM CALIFORNIA WITH COMMENTS ON TAXONOMY. J. MAMMAL. 34(2):239-249.

MENTIONS THE STRANDING OF A MESOPLODON ON THE SHORES OF DRAKES BAY, MARIN COUNTY, CALIFORNIA IN MARCH 1950. CONCLUDES THAT MESOPLODON BOWDOINI AND MESOPLODON STEJNEGERI REPRESENT ONE SPECIES.

(D)

744. ROEST, A.I. 1964. PHYSTER AND MESOPLODON STRANDINGS ON THE CENTRAL CALIFORNIA COAST. J. MAMMAL. 45(1):129-136.

DISCUSSES STRANDING OF MESOPLODON STEJNEGERI IN SAN SIMEON BAY, SAN LUIS OBISPO COUNTY, CALIFORNIA IN APRIL 1962.

(D)

745. U.S. DEPARTMENT OF COMMERCE. 1978. REPORT OF THE SECRETARY OF COMMERCE ON ADMINISTRATION OF THE MARINE MAMMAL PROTECTION ACT OF 1972. ANNUAL REPORT, APRIL 1, 1977 TO MARCH 31, 1978. PREPARED BY NOAA/NMFS. 183 P.

PAGES 177-178 CONTAIN INFORMATION ON TWO SPECIES OF MESOPLODON KNOWN TO OCCUR OFF CALIFORNIA. NOTES THAT LITTLE INFORMATION IS AVAILABLE ON POPULATION SIZE AND LIFE HISTORY.

(D)

ORCINUS ORCA - KILLER WHALE

746. AINLEY, D.G., H.R. HUBER, R.P. HENDERSON, AND T.J. LEWIS. 1977. STUDIES OF MARINE MAMMALS AT THE FARALLON ISLANDS, CALIFORNIA, 1970-1975. MARINE MAMMAL COMMISSION REPORT MMC-74/04, NTIS PB 274 046 42 P.

A POD OF SIX KILLER WHALES WAS SEEN IN MAY 1974 AND ANOTHER POD OF FOUR WAS SEEN IN AUGUST 1974. IN MAY 1972 TWO WERE SEEN ATTACKING A GRAY WHALE AND IN OCTOBER 1972 A SINGLE MALE WAS SEEN. (D)

747. AINLEY, D.G., H.R. HUBER, R.P. HENDERSON, T.J. LEWIS, AND S.H. MORRELL. 1977. STUDIES OF MARINE MAMMALS AT THE FARALLON ISLANDS, CALIFORNIA, 1975-1976. MARINE MAMMAL COMMISSION REPORT MMC-75/02, NTIS PB 266 249. 32 P.

A POD OF SEVEN KILLER WHALES WAS SEEN ON MAY 7TH, 1976. ANOTHER POD OF THREE KILLER WHALES WAS SEEN ON MAY 31, 1976. MENTIONS THAT AN ADULT MALE WASHED ASHORE DEAD IN JULY 1976. (D)

748. AINLEY, D.G., H.R. HUBER, S. MORRELL, AND R.H. LEVALLEY. 1978. STUDIES AT THE FARALLON ISLANDS, 1977. FINAL REP., MARINE MAMMAL COMM., CONTRACT NO. MM 6ACO27, WASH, DC.

NOT SEEN.

749. ANTONELIS, G.A. 1978. UNPUBLISHED NOTE ON ORCINUS. MAR. MAM. DIV., U.S. DEPT. COMMER., NOAA(NMFS), NORTHWEST AND ALASKA FISHERIES CENTER, SEATTLE, WA.

HAS SOME INFORMATION IDENTIFYING A CONFLICT BETWEEN KILLER WHALES AND ALBACORE FISHERMEN IN SOUTHERN CALIFORNIA. (F)

750. ASPER, E.D. AND L.H. CORNELL. 1977. LIVE CAPTURE STATISTICS FOR THE KILLER WHALE (ORCINUS ORCA) 1961-1976 IN CALIFORNIA, WASHINGTON, AND BRITISH COLUMBIA. AQUATIC MAMMALS 5(1):21-26.

INCLUDES INFORMATION ON ABUNDANCE AND NATURAL MORTALITY. CONTAINS A CHART OF WHALES CAUGHT FROM 1961-1976. (D)

751. BALDRIDGE, A. 1969. MARINE MAMMALS. IN STANFORD UNIV. HOPKINS MAR. STN., PAC. GROVE, CALIF., ANN. REP., 1969. CALCOFI HYDROGRAPHIC DATA.

CONTAINS A SIGHTING RECORD OF A POD OF KILLER WHALES IN MONTEREY BAY. (D)

ORCINUS

752. BALDRIDGE, A. 1971. OBSERVATIONS OF MARINE MAMMALS. PP. 47-49. IN STANFORD UNIV. HOPKINS MAR. STN., PAC. GROVE, CALIF. ANN. REP., 1970. CALCOFI HYDROGRAPHIC DATA.

CONTAINS SIGHTING RECORDS OF KILLER WHALES IN MONTEREY BAY. (D)

753. BALDRIDGE, A. 1972. KILLER WHALES ATTACK AND EAT A GRAY WHALE. J. MAMMAL. 53(4):898-900.

CONTAINS AN ACCOUNT OF FIVE OR SIX KILLER WHALES ATTACKING A GRAY WHALE AND ITS ACCOMPANYING CALF, SOUTH OF CARMEL, CALIFORNIA IN MAY 1967. MENTIONS OTHER SIGHTINGS OF KILLER WHALES OFF HOPKINS MARINE STATION IN PACIFIC GROVE AND OFF CAPITOLA, SANTA CRUZ COUNTY. (D)

754. BALDRIDGE, A. 1972. MONTEREY BAY REGION MARINE MAMMAL OBSERVATIONS. PP. 57-60. IN STANFORD UNIV. HOPKINS MAR. STN., PAC. GROVE, CALIF., ANN. REP., 1970. CALCOFI HYDROGRAPHIC DATA.

CONTAINS SIGHTING RECORDS OF KILLER WHALES. (D)

755. BALDRIDGE, A. 1973. MONTEREY BAY REGION MARINE MAMMAL OBSERVATIONS, 1972. PP. 30-33. IN STANFORD UNIV. HOPKINS MAR. STN., PAC. GROVE, CALIF., ANN. REP., 1972. CALCOFI HYDROGRAPHIC DATA.

CONTAINS SIGHTING RECORDS OF KILLER WHALES. (D)

756. BARHAM, E. 1978. HISTORICAL MARINE MAMMAL SIGHTINGS IN MONTEREY BAY. U.S. DEPT. COMMER., NOAA/NMFS, SOUTHWEST FISHERIES CENTER, LA JOLLA, CALIF. 18 . (UNPUBL. MANUSCR.).

NOTES THAT THERE WERE ONLY FOUR RECORDED SIGHTINGS OF KILLER WHALES DURING THE PERIOD 1950-1955. ALSO NOTES MONTH IN WHICH SIGHTINGS WERE MADE. (D)

757. BIGG, M. 1972. KILLER WHALE STUDY. VANCOUVER PUBLIC AQUARIUM NEWSLETTER 26(1), JAN.-FEB. 1972.

BRIEFLY MENTIONS A KILLER WHALE CENSUS TAKEN IN 1971-1972 IN BRITISH COLUMBIA, WASHINGTON, OREGON, AND CALIFORNIA. ONLY 13 SIGHTINGS WERE RECORDED FROM CALIFORNIA. (D)

758. BUREAU OF LAND MANAGEMENT. 1975. MARINE MAMMALS. PP. 407-445. IN FINAL ENVIRONMENTAL STATEMENT PROPOSED 1975 OUTER CONTINENTAL SHELF OIL AND GAS GENERAL LEASE SALE OFFSHORE SOUTHERN CALIFORNIA. VOL. 1 OF 5. U.S. DEPT. INTER.

ORCINUS

PAGES 416-417 CONTAIN INFORMATION ON THE DISTRIBUTION, LIFE HISTORY, AND FREQUENT DISEASES OF KILLER WHALES. MENTIONS THAT NO DATA ON POPULATION FIGURES HAVE BEEN REPORTED BUT IT IS ASSUMED THAT A LARGE STABLE POPULATION EXISTS. (D,P)

759. BURRAGE, B.R. 1964. AN OBSERVATION REGARDING GRAY WHALES AND KILLER WHALES. KANSAS ACAD. SCI., TRANS. 67(3):550-551.

BRIEFLY MENTIONS THE ENCOUNTER OF SIX GRAY WHALES WITH FIVE KILLER WHALES OFF LA JOLLA COVE, CALIFORNIA IN JANUARY OF 1964. ALSO NOTES THE 1950 ATTACK OF FIVE KILLER WHALES ON TWO GRAY WHALES OFF LA JOLLA. (D)

760. CARL, G.C. 1945. A SCHOOL OF KILLER WHALES STRANDED AT ESTEVEN POINT, VANCOUVER ISLAND. REPORT OF THE PROVINCIAL MUSEUM OF NAT. HIST. AND ANTHROPOLOGY, VICTORIA, B.C.

DISCUSSES THE STRANDING OF 13 FEMALES, SEVEN MALES, AND ONE MALE FOETUS IN 1945. PERTINENT DATA INCLUDES LENGTH RELATIONSHIPS, AND THE AGE AND LENGTH AT ATTAINMENT OF SEXUAL MATURITY IN THE MALE. (R)

761. GILMORE, R.M. 1976. SIGHTINGS: KILLER WHALES IN THE SAN DIEGO AREA, DEL MAR TO THE CORONADO ISLANDS. A.S.C. NEWSLETTER, AM. CETACEAN SOCIETY OF SAN DIEGO, DEC. 1976.

INCLUDES 53 SIGHTINGS, MAINLY FROM LA JOLLA TO POINT LOMA SINCE 1953. IN 21 OF THESE SIGHTINGS THE ANIMALS WERE HEADING SOUTH. MENTIONS SIGHTINGS BY MONTH. (D)

762. JACKSON, R.A. 1972. A SEA MAMMAL TOUR. AUGUST 20, 1972, SAN FRANCISCO SUNDAY EXAMINER & CHRONICLE (CALIF. LIVING MAG.).

BRIEF ACCOUNT OF WHEN AND WHERE TO SEE KILLER WHALES ALONG THE NORTHERN CALIFORNIA COAST. MAP INCLUDED. (D)

763. JONSGARD, A. AND P.B. LYSHOEL. 1970. A CONTRIBUTION TO THE KNOWLEDGE OF THE BIOLOGY OF THE KILLER WHALE ORCINUS ORCA (L.). NYTT MAG. ZOOL. 18:41-48.

DISCUSSES BIOLOGICAL DATA ON 1413 WHALES CAUGHT BY NORWEGIAN WHALERS IN THE NORTHEASTERN NORTH ATLANTIC IN THE PERIOD 1938-1967. INCLUDES DATA ON THE BREEDING SEASON, LENGTH AT SEXUAL MATURITY FOR BOTH SEXES, AND LENGTH OF GESTATION. (R)

764. LEATHERWOOD, J.S. AND M.E. DAHLHEIM. 1978. WORLDWIDE DISTRIBUTION OF PILOT WHALES AND KILLER WHALES. NAVAL OCEAN SYSTEMS CENTER, NOSC TR 295, SAN DIEGO, CALIF. 39 P.

ORCINUS

THIS PAPER SUMMARIZES WHAT IS KNOWN AND CAN REASONABLY BE PREDICTED (D)
ABOUT THE DISTRIBUTION AND SEASONAL MOVEMENTS OF KILLER WHALES.
NOTES THAT KILLER WHALES ARE COMMONLY OBSERVED OFF THE CALIFORNIA
COAST BUT NO SEASONALTY IS INDICATED. CONTAINS MAPS OF THE WORLD-
WIDE DISTRIBUTION OF KILLER WHALES AND THE LIKELIHOOD OF OCCURRENCE
OF KILLER WHALES IN THE WORLD'S OCEANS.

765. LEATHERWOOD, S., W.F. PERRIN, AND M. DAHLHEIM. DISTRIBUTION AND
ABUNDANCE OF KILLER WHALES, ORCINUS ORCA, IN A PORTION OF
THE EASTERN PACIFIC (15°S TO 35°N); BASED ON COLLECTIONS AND
SIGHTING RECORDS (1927 THROUGH 1976). (IN PREP.).

THIS DATA ON SIGHTINGS, STRANDINGS, AND COLLECTIONS CONTAINS 350 (D,E)
PREVIOUSLY UNPUBLISHED REPORTS OF ORCINUS FROM 1939-1976 AS WELL
AS PUBLISHED ACCOUNTS. SURVEY EFFORT RECORDS ARE SUMMARIZED IN
CHARTS AND GRAPHS. THESE SHOW LOCATION OF SIGHTINGS, NUMBER OF
SIGHTINGS PER 5° SQUARE, HOURS OF EFFORT PER SQUARE, AND AN INDEX
OF THE FREQUENCY OF ENCOUNTER PER 5° SQUARE. CITES EFFORT DATA
FROM OTHER RESEARCHERS FOR THE SOUTHERN CALIFORNIA COASTAL AND
OFFSHORE AREA DURING 1960 TO 1976.

766. MARINE FISHERIES BRANCH. 1956. AIRPLANE SPOTTING FLIGHT 56-10.
CALIF. DEPT. FISH & GAME, SACRAMENTO, CALIF.

DURING AERIAL SURVEY OF PELAGIC FISH SCHOOLS, SIX KILLER WHALES (D)
WERE SIGHTED OFF SANTA BARBARA IN NOVEMBER OF 1956.

767. MARINE MAMMAL DIVISION STAFF. 1977. IMPACT OF MARINE MAMMALS
ON SALMON STOCKS. U.S. DEPT. OF COMMER., NOAA (NMFS),
NORTHWEST AND ALASKA FISHERIES CENTER, SEATTLE, WA. 23 P.

DISCUSSES SALMON PREDATION BY MARINE MAMMALS, THE EFFECT OF (F)
MARINE MAMMALS ON FISHING OPERATIONS, AND INCIDENTAL MORTALITY
OF MARINE MAMMALS IN FISHING OPERATIONS. DISCUSSES KILLER
WHALE/FISHERIES CONFLICT ALONG THE U.S. PACIFIC COAST. BIBLIO-
GRAPHY INCLUDED.

768. MARTINEZ, D.R. AND E. KLINGHAMMER. 1970. THE BEHAVIOR OF THE
WHALE ORCINUS ORCA: A REVIEW OF THE LITERATURE. Z. TIER-
PSYCHOL. 27:828-839.

DISCUSSES MORPHOLOGY AND INTRASPECIFIC AND INTERSPECIFIC RELA- (D)
TIONSHPIS. MENTIONS THAT OFF THE COASTS OF CALIFORNIA AND MEXICO
KILLER WHALES FEED PRIMARILY UPON DOLPHINS, SEA LIONS, AND WHALES.
CONTAINS ACCOUNTS OF ATTACKS IN THESE AREAS.

ORCINUS

769. MOREJOHN, G.V. 1968. A KILLER WHALE - GRAY WHALE ENCOUNTER.
J. MAMMAL. 49(2):327-328.

RECORDED SIGHTING OF SEVEN KILLER WHALES ATTACKING GRAY WHALES (D)
NEAR MONTEREY, CALIFORNIA IN MAY 1967.

770. NISHIWAKI, M. 1972. GENERAL BIOLOGY. PP. 3-204. IN (RIDGWAY,
S.H., ED.), MAMMALS OF THE SEA. BIOLOGY AND MEDICINE.
SPRINGFIELD, IL: C.C. THOMAS.

PAGES 129-132 DISCUSS THE OVERALL DISTRIBUTION, MIGRATIONS, FOOD (D,R)
HABITS, REPRODUCTION, AND LONGEVITY OF KILLER WHALES.

771. NISHIWAKI, M. AND C. HANDA. 1958. KILLER WHALES CAUGHT IN THE
COASTAL WATERS OFF JAPAN FOR RECENT 10 YEARS. WHALES RES.
INST., SCI. REP. 13:85-96.

LISTS A TABLE OF SEX RATIOS FOR 567 KILLER WHALES CAUGHT FROM (R)
1948-1957. INCLUDED IS A MALE/FEMALE SIZE DISTRIBUTION GRAPH.
MENTIONS LENGTH OF GESTATION, LENGTH OF FOETUSES, TIME OF PEAK
BREEDING SEASON, AND FEEDING HABITS. DATA MAY BE RELEVANT TO
WHALES OFF CALIFORNIA.

772. NORRIS. K.S. AND J.H. PRESCOTT. 1961. OBSERVATIONS ON PACIFIC
CETACEANS OF CALIFORNIA AND MEXICAN WATERS. UNIV. CALIF.
PUBL. IN ZOOL. 63:291-370.

PAGES 330-334 INCLUDE INFORMATION ON THE DISTRIBUTION, CAPTURE, (D)
AND SIGHTING OBSERVATIONS OF KILLER WHALES. CONTAINS A MAP OF
SIGHTINGS OFF SOUTHERN CALIFORNIA.

773. OHSUMI, S., Y. MASAKI, AND S. WADA. 1976. A NOTE ON THE DISTRI-
BUTION OF SOME SMALLER CETACEANS IN THE NORTH PACIFIC. INTER-
NATIONAL WHALING COMMISSION, SUBCOMM. ON SMALL CETACEANS,
IWC/SC/28/LONDON, 6 P.

CONTAINS SIGHTING DATA WITH A MAP OF THE AVERAGE DENSITY DIS- (D)
TRIBUTION OF KILLER WHALES IN THE NORTH PACIFIC FROM 1965-1975.

774. RICE, D.W. 1968. STOMACH CONTENTS AND FEEDING BEHAVIOR OF
KILLER WHALES IN THE EASTERN NORTH PACIFIC. NORSK HVAL.-TID.
57(2):35-38.

NOTES THE STOMACH CONTENTS OF 10 WHALES CAUGHT BETWEEN KODIAK (D)
ISLAND, ALASKA AND SAN MIGUEL ISLAND, CALIFORNIA FROM 1960-1967.
NINE OF TEN WHALES WERE CAUGHT IN CALIFORNIA WATERS AND DATA
INCLUDES POSITION OF CAPTURE. ALSO MENTIONS OTHER SIGHTINGS
OF KILLER WHALES.

ORCINUS

775. SCHEFFER, V.B. 1967. THE KILLER WHALE. PACIFIC SEARCH 1(7):1-2.

BRIEFLY DISCUSSES THE OVERALL DISTRIBUTION, GENERAL BIOLOGY, AND FEEDING HABITS OF KILLER WHALES.

(D)

776. SCHEFFER, V.B. 1970. THE CLICHE OF THE KILLER WHALE. J. AM. MUS. NAT. HIST. 79(8):26-28, 76, 78.

BRIEFLY DISCUSSES THE SIGHTING OR CAPTURING OF KILLER WHALES OFF THE WEST COAST OF NORTH AMERICA. MENTIONS THE SIGHTING OF A KILLER WHALE WITH AN ADULT MALE SEA LION IN ITS MOUTH NEAR THE CHANNEL ISLANDS.

(D)

777. SEA WORLD. 1974. KILLER WHALE FACT SHEET. SEA WORLD EDUCATION DEPT., SAN DIEGO, CALIF. 7 P.

CONTAINS INFORMATION ON DISTRIBUTION, FEEDING HABITS, REPRODUCTION, AND LONGEVITY.

(D,R)

778. U.S. DEPARTMENT OF COMMERCE. 1978. REPORT OF THE SECRETARY OF COMMERCE ON ADMINISTRATION OF THE MARINE MAMMAL PROTECTION ACT OF 1972. ANNUAL REPORT, APRIL 1, 1977 TO MARCH 31, 1978. PREPARED BY NOAA/NMFS. 183 P.

PAGES 156-157 DISCUSS OVERALL DISTRIBUTION, ABUNDANCE, AND GENERAL BIOLOGY OF KILLER WHALES. NOTES THAT MANY CONSIDER KILLER WHALES AN IMPORTANT PREDATOR OF SALMON AND HERRING.

(D,F)

PHOCOENOIDES DALLI - DALL'S PORPOISE

779. AINLEY, D.G., H.R. HUBER, R.P. HENDERSON, AND T.J. LEWIS. 1977. STUDIES OF MARINE MAMMALS AT THE FARALLON ISLANDS, CALIFORNIA, 1970-1975. MARINE MAMMAL COMMISSION REPORT MMC-74/04, NTIS PB 274 046. 42 P.

INCLUDES TWO SIGHTINGS OF DALL'S PORPOISE; SIX ANIMALS SOUTH OF THE ISLAND IN DECEMBER 1971 AND SIX OR SEVEN IN THE SAME VICINITY IN AUGUST 1973. (D)

780. AINLEY, D.G., H.R. HUBER, R.P. HENDERSON, T.J. LEWIS, AND S.H. MORRELL. 1977. STUDIES OF MARINE MAMMALS AT THE FARALLON ISLANDS, CALIFORNIA, 1975-1976. MARINE MAMMAL COMMISSION REPORT MMC-75/02, NTIS PB 266 249. 32 P.

TWELVE DALL'S PORPOISE WERE SEEN 2KM EAST OF THE ISLAND ON JUNE 19, 1976. (D)

781. AINLEY, D.G., H.R. HUBER, S. MORRELL, AND R.H. LEVALLEY. 1978. STUDIES AT THE FARALLON ISLANDS, 1977. FINAL REP., MARINE MAMMAL COMM., CONTRACT NO. MM6ACO27, WASH, DC.

NOT SEEN.

782. BALDRIDGE, A. 1969. MARINE MAMMALS. IN STANFORD UNIV. HOPKINS MAR. STN., PAC. GROVE, CALIF. ANN. REP., 1969. CALCOFI HYDROGRAPHIC DATA.

CONTAINS SIGHTING RECORDS OF DALL'S PORPOISE IN MONTEREY BAY. (D)

783. BALDRIDGE, A. 1971. OBSERVATIONS OF MARINE MAMMALS. PP. 47-49. IN STANFORD UNIV. HOPKINS MAR. STN., PAC. GROVE, CALIF. ANN. REP., 1970. CALCOFI HYDROGRAPHIC DATA.

CONTAINS SIGHTING RECORDS OF DALL'S PORPOISE IN MONTEREY BAY. (D)

784. BALDRIDGE, A. 1972. MONTEREY BAY REGION MARINE MAMMAL OBSERVATIONS. PP. 57-60. IN STANFORD UNIV. HOPKINS MAR. STS., PAC. GROVE, CALIF., ANN. REP., 1971. CALCOFI HYDROGRAPHIC DATA.

CONTAINS SIGHTING RECORDS OF DALL'S PORPOISE. (D)

785. BALDRIDGE, A. 1973. MONTEREY BAY REGION MARINE MAMMAL OBSERVATIONS, 1972. PP. 30-33. IN STANFORD UNIV. HOPKINS MAR. STN., PAC. GROVE, CALIF., ANN. REP., 1972. CALCOFI HYDROGRAPHIC DATA.

CONTAINS SIGHTING RECORDS OF DALL'S PORPOISE. (D)

PHOCOENOIDES

786. BARHAM, E. 1978. HISTORICAL MARINE MAMMAL SIGHTINGS IN MONTEREY BAY. U.S. DEPT. COMMER., NOAA/NMFS, SOUTHWEST FISHERIES CENTER, LA JOLLA, CALIF. 18 P. (UNPUBL. MANUSCR.).

CONTAINS INFORMATION ON MARINE MAMMAL SIGHTINGS IN MONTEREY BAY DURING 1950-1955. INCLUDES A TABLE WITH THE TOTAL NUMBER OF SIGHTINGS FOR 15 SPECIES OF MARINE MAMMALS ON A YEARLY BASIS. INFORMATION ON PHOCOENOIDES INCLUDES HERD SIZE FREQUENCY, SEASONAL DISTRIBUTION, AND APPROXIMATE DISTANCE FROM SHORE AND DEPTH OF WATER AT TIME OF SIGHTING. NOTES THE MOST COMMONLY SIGHTED MARINE MAMMAL WAS PHOCOENOIDES.

(D)

787. BENSON, S.B. AND T.C. GROODY. 1942. NOTES ON THE DALL PORPOISE (PHOCOENOIDES DALLI). J. MAMMAL. 23(1):41-51.

NOTES THE CAPTURE OF A DALL'S PORPOISE IN SAN FRANCISCO BAY IN DECEMBER 1940. INCLUDES REFERENCE TO A DALL'S PORPOISE COLLECTED IN 1925 IN THE SANTA BARBARA CHANNEL.

(D)

788. BREEN, B. UNPUBLISHED PHOCOENOIDES DATA. PARK NATURALIST, JAMES V. FITZGERALD MARINE RESERVE, MOSS BEACH, CALIF.

HAS DATA ON A FEMALE DALL PORPOISE THAT STRANDED ON MOSS BEACH IN JUNE 1973. PORPOISE HAD BEEN SHOT.

(D,F)

789. BUREAU OF LAND MANAGEMENT. 1975. MARINE MAMMALS. PP. 407-445. IN FINAL ENVIRONMENTAL STATEMENT PROPOSED 1975 OUTER CONTINENTAL SHELF OIL AND GAS GENERAL LEASE SALE OFFSHORE SOUTHERN CALIFORNIA. VOL. 1 OF 5. U.S. DEP. INTER.

PAGES 426-427 DISCUSS THE OVERALL DISTRIBUTION, POPULATION SIZE, LIFE HISTORY, AND DISEASES OF DALL'S PORPOISE. MENTIONS THAT THIS PORPOISE IS THE FIFTH MOST ABUNDANT ONDONTOCETI FROM PT. CONCEPTION TO ENSENADA.

(D,P)

790. BUTTERWORTH, B.B. 1957. PHOCOENOIDES DALLI WASHED ASHORE IN CALIFORNIA. J. MAMMAL. 38(1):126.

RECORD OF A BEACHED (DEAD) ANIMAL AT LONG BEACH, CALIFORNIA IN 1956.

(D)

791. COWAN, I.M. 1944. THE DALL PORPOISE PHOCOENOIDES DALLI (TRUE) OF THE NORTH PACIFIC OCEAN. J. MAMMAL. 25(3):295-306.

DISCUSSES RANGE.

(D)

792. JACKSON, R.A. 1972. A SEA MAMMAL TOUR. AUGUST 20, 1972, SAN FRANCISCO SUNDAY EXAMINER & CHRONICLE (CALIF. LIVING MAG.).

PHOCOENOIDES

BRIEF ACCOUNT OF WHEN AND WHERE TO SEE DALL'S PORPOISE ALONG THE NORTHWESTERN CALIFORNIA COAST. MAP INCLUDED. (D)

793. JOHNSTON, D.G. AND S.H. RIDGWAY. 1969. PARASITISM IN SOME MARINE MAMMALS. J. VET. MED. ASSOC. 155(7):1064-1072.

CONTAINS FIVE INDIVIDUAL CAPTURE RECORDS OF DALL'S PORPOISE IN SOUTHERN CALIFORNIA IN 1965-1966. (D)

794. KASUYA, T. 1974. BIOLOGY, CATCH, AND POPULATIONS OF PHOCOENOIDES IN THE WESTERN NORTH PACIFIC. FAO/ACMRR WORKING PARTY ON MARINE MAMMALS, AD HOC GROUP II - SMALL CETACEANS AND SIRENIANS. LA JOLLA, 16-19 DEC. 1974.

DISCUSSES STATUS OF POPULATION AND REPRODUCTIVE BIOLOGY. (P,R)

795. KASUYA, T. 1978. THE LIFE HISTORY OF DALL'S PORPOISE WITH SPECIAL REFERENCE TO THE STOCK OFF THE PACIFIC COAST OF JAPAN (ABSTRACT). PROCEEDINGS OF THE INTERNATIONAL CONFERENCE ON DETERMINING AGE OF ODONTOCETE CETACEANS. SOUTHWEST FISHERIES CENTER, LA JOLLA, CALIFORNIA, SEP. 5-7, 1978.

CONTAINS INFORMATION ON TIME OF BIRTH, LENGTH OF GESTATION, AND AGE AT ATTAINMENT OF SEXUAL MATURITY. STATES THAT THE MEAN CALVING INTERVAL IS ABOUT THREE YEARS AND THE ANNUAL MORTALITY RATE OF THE ADULT FEMALE WILL BE BELOW 0.1. (M,R)

796. LOEB, V.J. 1972. A STUDY OF THE DISTRIBUTION AND FEEDING HABITS OF DALL PORPOISE IN MONTEREY BAY, CALIFORNIA. M.A. THESIS, DEPT. OF BIOL. SCI., SAN JOSE STATE COLLEGE. 62 P.

DISCUSSES RANGE, REPRODUCTIVE PARAMETERS, AND SIGHTING RECORDS FOR MONTEREY BAY. INCLUDES RANGE MAP AND A GROWTH CURVE. (D,R)

797. LUSTIG, B.L. 1948. SIGHTING RECORDS OF DALL'S PORPOISE OFF THE CHANNEL ISLANDS, CALIFORNIA. J. MAMMAL. 29(2):183.

CONTAINS SIGHTING RECORDS FROM FISHING LOGS FOR 1936 and 1939. (D)

798. MARINE MAMMAL DIVISION STAFF. 1977. IMPACT OF MARINE MAMMALS ON SALMON STOCKS. U.S. DEPT. OF COMMER., NOAA (NMFS), NORTHWEST AND ALASKA FISHERIES CENTER, SEATTLE, WA. 23 P.

DISCUSSES SALMON PREDATION BY MARINE MAMMALS, THE EFFECT OF MARINE MAMMALS ON FISHING OPERATIONS, AND INCIDENTAL MORTALITY (F)

PHOCOENOIDES

OF MARINE MAMMALS IN FISHING OPERATIONS. DISCUSSES DALL'S PORPOISE/FISHERIES CONFLICT ALONG THE PACIFIC COAST. BIBLIOGRAPHY INCLUDED.

799. MIZUE, K., Y. KAZYMOTO, AND A. TAKEMURA. 1966. ON THE ECOLOGY OF THE DALL'S PORPOISE IN THE BERING SEA AND THE NORTH PACIFIC OCEAN. FACULTY FISH., NAGASAKI UNIV., BULL. 21:2-21.

CONTAINS A SUMMARY OF REPRODUCTIVE DATA FROM 1964-1965. INCLUDES DATA ON TIME OF BIRTH, LENGTH AT BIRTH, GESTATION, AND SEXUAL MATURITY. (R)

800. MOREJOHN, G.V. 1977. FEEDING ECOLOGY OF MARINE MAMMALS IN MONTEREY BAY, CALIFORNIA (ABSTRACT). PROCEEDINGS OF THE SECOND CONFERENCE ON THE BIOLOGY OF MARINE MAMMALS. SAN DIEGO, CALIF., DEC. 12-15, 1977.

STOMACH CONTENTS WERE COLLECTED FROM DEAD, BEACH-CAST, OR STRANDED CETACEANS. ANALYSIS SHOWED THAT DALL'S PORPOISE FED MAINLY ON ANCHOVY, MIDSHIPMEN, SPOTTED CUSK EEL, HAKE, ROCKFISH, FLATFISH, AND CEPHALOPODS. DALL'S PORPOISE PREFER MORE MESOPELAGIC FISHES AND A GREATER DIVERSITY OF CEPHALOPODS THAN THE PACIFIC WHITE-SIDED DOLPHIN. (D)

801. MOREJOHN, G.V. 1977. THE NATURAL HISTORY OF DALL'S PORPOISE IN THE NORTH PACIFIC OCEAN. IN (WINN, H.E. AND B.L. OLLA, EDS.), BEHAVIOR OF MARINE ANIMALS. VOL. III - CETACEA. NEW YORK: PLENUM PRESS. (IN PRESS).

NOT SEEN.

802. MOREJOHN, G.V. AND D.M. BALTZ. 1972. ON THE REPRODUCTIVE TRACT OF THE FEMALE DALL PORPOISE. J. MAMMAL. 53(3):606-608.

CONTAINS RESULTS OF A REPRODUCTIVE STUDY OF 22 DALL'S PORPOISE THAT WERE EITHER STRANDED ALIVE AND ILL, BEACH CAST DEAD SPECIMENS, OR HARPOONED AT SEA BY A RESEARCH VESSEL IN THE MONTEREY BAY VICINITY. (R)

803. MOREJOHN, G.V., V. LOEB, AND D.M. BALTZ. 1973. COLORATION AND SEXUAL DIMORPHISM IN THE DALL PORPOISE. J. MAMMAL. 54(4): 977-982.

RECORDED SIGHTINGS IN MONTEREY BAY IN SEPTEMBER 1970, JANUARY 1971, AND SEPTEMBER 1971. (D)

PHOCOENOIDES

804. NISHIWAKI, M. 1972. GENERAL BIOLOGY. PP. 3-204. IN (RIDGWAY, S.H., ED.), MAMMALS OF THE SEA. BIOLOGY AND MEDICINE. SPRINGFIELD, IL: C.C. THOMAS.

PAGES 115-118 DISCUSS THE GENERAL DISTRIBUTION AND ABUNDANCE OF DALL'S PORPOISE. MENTIONS THAT THE PEAK OF PARTURITION MAY BE IN SUMMER. (D)

805. NORRIS, K.S. AND J.H. PRESCOTT. 1961. OBSERVATIONS ON PACIFIC CETACEANS OF CALIFORNIA AND MEXICAN WATERS. UNIV. CALIF. PUBL. IN ZOOLOG. 63:291-370.

PAGES 351-358 DISCUSS RANGE, SEASONAL MOVEMENTS, AND CAPTURE OBSERVATIONS FOR DALL'S PORPOISE. (D)

806. OKADA, Y. AND R. HAYASHI. 1951. STUDIES OF THE DELPHINIDAE OF JAPAN (IV). NOTES ON THE MIGRATION AND FOETUS OF PHOCOENOIDES DALLI (TRUE) IN JAPAN. REP. OF FAC. OF FISH. PREFECTURAL UNIV. OF MIE. 1(1):4-6.

BRIEFLY MENTIONS BREEDING AND GESTATION PERIODS. (R)

807. RIDGWAY, S.H. 1966. DALL PORPOISE, PHOCOENOIDES DALLI (TRUE): OBSERVATIONS IN CAPTIVITY AND AT SEA. NORSK HVAL.-TID. 55(5):97-110.

RECORDED SIGHTINGS IN CALIFORNIA IN THE SUMMER OF 1964 AND FEBRUARY AND AUGUST OF 1965. (D)

808. SCHEFFER, V.B. 1942. FURTHER RECORDS OF THE DALL PORPOISE IN CALIFORNIA. J. MAMMAL. 23(2):221.

DISCUSSES VARIOUS SIGHTINGS OF DALL'S PORPOISE OFF CRESCENT CITY, FORT ROSS, AND POINT SUR, CALIFORNIA IN 1941. (D)

809. SCHEFFER, V.B. 1953. MEASUREMENTS AND STOMACH CONTENTS OF ELEVEN DELPHINIDS FROM THE NORTHEAST PACIFIC. MURRELET 34(2):27-30.

THREE PHOCOENOIDES WERE COLLECTED OFF CALIFORNIA IN 1952. STOMACH CONTENTS CONSISTED OF PRIMARILY DIGESTED FISH (60-90%) AND SQUID BEAKS (1-40%). (D,F)

810. U.S. DEPARTMENT OF COMMERCE. 1978. REPORT OF THE SECRETARY OF COMMERCE ON ADMINISTRATION OF THE MARINE MAMMAL PROTECTION ACT OF 1972. ANNUAL REPORT, APRIL 1, 1977 TO MARCH 31, 1978. PREPARED BY NOAA/NMFS. 183 P.

PHOCOENOIDES

PAGES 160-161 DISCUSS OVERALL DISTRIBUTION, ABUNDANCE, AND GENERAL BIOLOGY OF DALL'S PORPOISE. NOTES THAT THIS PORPOISE IS COMMONLY SEEN OFF NORTHERN CALIFORNIA AND IS A YEAR ROUND RESIDENT AS FAR SOUTH AS THE NORTHERN CHANNEL ISLANDS.

(D)

811. U.S. DEPARTMENT OF STATE. 1978. DRAFT ENVIRONMENTAL IMPACT STATEMENT FOR THE RE-NEGOTIATION OF THE INTERNATIONAL CONVENTION FOR THE HIGH SEA FISHERIES OF THE NORTH PACIFIC OCEAN. U.S. DEPT. STATE. 147 P.

PAGES 100-108 DISCUSS THE MORPHOLOGY, DISTRIBUTION, MIGRATION, REPRODUCTION, AND FEEDING HABITS OF DALL'S PORPOISE. NOTES THAT DALL'S PORPOISE ARE YEAR-ROUND RESIDENTS OF THE NORTHERN CHANNEL ISLANDS. INCLUDES A CHART WITH BIOLOGICAL PARAMETERS SUCH AS THE LENGTH AND AGE AT ATTAINMENT OF SEXUAL MATURITY, TIME OF PARTURITION, AND THE MEAN CALVING INTERVAL FOR PORPOISE FOUND IN THE NORTHWESTERN NORTH PACIFIC.

(D,R)

812. YOCOM, C.F. 1946. NOTES ON THE DALL PORPOISE OFF CALIFORNIA. J. MAMMAL. 27(4):364-368.

INCLUDES SIGHTING RECORDS IN THE VICINITY OF THE FARALLON ISLANDS IN 1945.

(D)

PSEUDORCA CRASSIDENS - FALSE KILLER WHALE

813. BROWN, D.H., D.K. CALDWELL, AND M.C. CALDWELL. 1966. OBSERVATIONS ON THE BEHAVIOR OF WILD AND CAPTIVE FALSE KILLER WHALES, WITH NOTES ON ASSOCIATED BEHAVIOR OF OTHER GENERA OF CAPTIVE DELPHINIDS. LOS ANGELES CTY. MUS. NAT. HIST., CONTRIB. SCI. 95:1-32.

NOTES THE SIGHTING OF TWO SCHOOLS OF FALSE KILLER WHALES. APPROXIMATELY 300 ANIMALS WERE SEEN NEAR SANTA CATALINA ISLAND IN DECEMBER 1959 AND ANOTHER SCHOOL OF ABOUT 300 WAS SEEN NEAR THE PALOS VERDES PENINSULA

(D)

814. BUREAU OF LAND MANAGEMENT. 1975. MARINE MAMMALS. PP. 407-445. IN FINAL ENVIRONMENTAL STATEMENT PROPOSED 1975 OUTER CONTINENTAL SHELF OIL AND GAS GENERAL LEASE SALE OFFSHORE SOUTHERN CALIFORNIA. VOL. 1 OF 5. U.S. DEPT. OF INTER.

PAGES 415-416 INCLUDE INFORMATION ON THE DISTRIBUTION, STUDY AREA SIGHTINGS, LIFE HISTORY, AND FREQUENT DISEASES OF FALSE KILLER WHALES. MENTIONS THAT THERE IS NO DATA ON THE CURRENT POPULATION SIZE OF THIS CETACEAN BUT IT IS ASSUMED TO EXIST IN CONSIDERABLE ABUNDANCE.

(D,P)

815. COMRIE, L.C. AND A.B. ADAM. 1938. THE FEMALE REPRODUCTIVE SYSTEM AND THE CORPORA LUTEA OF THE FALSE KILLER WHALE PSEUDORCA CRASSIDENS OWEN. ROY. SOC. EDIN., TRANS. 59(2):521-531.

INCLUDES DATA OBTAINED FROM 41 WHALES WHICH STRANDED IN SCOTLAND IN 1935. DISCUSSES THE CHARACTERISTICS OF THE CORPORA LUTEA AND THE INFORMATION THAT IT PROVIDES ON REPRODUCTIVE ACTIVITIES.

(R)

816. MILLER, G.S. 1921. AMERICAN RECORDS OF WHALES OF THE GENUS PSEUDORCA. PROC. U.S. NATL. MUS. 57(2311):205-208.

A BRIEF ACCOUNT OF SKULL MEASUREMENTS FROM DIFFERENT GEOGRAPHIC LOCATIONS. ONE SKULL AND SKELETON WAS FOUND NEAR LA PAZ, MEXICO IN 1888.

(D)

817. MITCHELL, E. 1965. EVIDENCE FOR MASS STRANDINGS OF THE FALSE KILLER WHALE (PSEUDORCA CRASSIDENS) IN THE EASTERN NORTH PACIFIC OCEAN. NORSK HVAL.-TID. 54(8):172-177.

TWO NEW SKULLS DISCOVERED ON SAN NICHOLAS ISLAND IN THE PERIOD 1958-1960. ALONG WITH PAST RECORDS IT IS BELIEVED THAT MASS STRANDINGS HAVE OCCURRED, WITH ONE STRANDING INVOLVING SIX OR MORE INDIVIDUALS PRIOR TO 1940 ON SAN NICHOLAS ISLAND. INCLUDES A TABLE OF SOME NORTH PACIFIC RECORDS.

(D)

PSEUDORCA

818. NISHIWAKI, M. 1972. GENERAL BIOLOGY. PP. 3-204. IN (RIDGWAY, S.H., ED.), MAMMALS OF THE SEA. BIOLOGY AND MEDICINE. SPRINGFIELD, IL.: C.C. THOMAS.

PAGES 132-133 BRIEFLY DISCUSS THE OVERALL DISTRIBUTION, FOOD HABITS, AND REPRODUCTION OF FALSE KILLER WHALES. (D)

819. NORRIS, K.S. AND J.H. PRESCOTT. 1961. OBSERVATIONS ON PACIFIC CETACEANS OF CALIFORNIA AND MEXICAN WATERS. UNIV. CALIF. PUBL. IN ZOOLOG. 63:291-370.

PAGES 334-336 INCLUDE INFORMATION ON THE DISTRIBUTION, CAPTURE, AND SIGHTING OBSERVATIONS OF FALSE KILLER WHALES. (D)

820. ODELL, D.K., E.D. ASPER, J. BAUCOM, AND L.H. CORNELL. 1978. A SUMMARY OF INFORMATION DERIVED FROM THE RECURRENT MASS STRANDING OF A HERD OF FALSE KILLER WHALES. (SUBMITTED TO FISH BULL.

CONTAINS A GENERAL ANALYSIS OF STRANDINGS IN FLORIDA IN 1976 WITH SPECIFIC NOTES ON BODY MEASUREMENTS, ORGAN WEIGHTS, AND REPRODUCTIVE CONDITION. (R)

821. STAEGER, K.E. AND W.G. REEDER. 1951. OCCURRENCE OF THE FALSE KILLER WHALE PSEUDORCA ON THE CALIFORNIA COAST. CONTRIBUTIONS FROM THE LOS ANGELES COUNTY MUSEUM. CHANNEL ISLAND BIOLOGICAL SURVEY NO. 35. SO. CALIF. ACAD. SCI., BULL. 50(1):14-20.

FOUR SKULLS FOUND ON SAN NICHOLAS ISLAND IN 1940 AND 1949 IDENTIFIED AS FALSE KILLER WHALES. (D)

822. U.S. DEPT. OF COMMERCE. 1978. REPORT OF THE SECRETARY OF COMMERCE ON ADMINISTRATION OF THE MARINE MAMMAL PROTECTION ACT OF 1972. ANNUAL REPORT, APRIL 1, 1977 TO MARCH 31, 1978. PREPARED BY NOAA/NMFS. 183 P.

PAGE 152 BRIEFLY DISCUSSES THE OVERALL DISTRIBUTION, ABUNDANCE, AND GENERAL BIOLOGY OF FALSE KILLER WHALES. NOTES THAT THIS WHALE IS UNCOMMON THROUGHOUT MOST OF ITS RANGE. (D,P)

STENO BREDANENSIS - ROUGH TOOTHED DOLPHIN

823. NISHIWAKI, M. 1972. GENERAL BIOLOGY. PP. 3-204. IN (RIDGWAY, S.H., ED.), MAMMALS OF THE SEA. BIOLOGY AND MEDICINE. SPRINGFIELD, IL.: C.C. THOMAS.

PAGE 104 BRIEFLY DISCUSSES MORPHOLOGY AND THE OVERALL DISTRIBUTION OF THE ROUGH-TOOTHED DOLPHIN. (D)

824. ORR, R.T. 1951. CETACEAN RECORDS FROM THE PACIFIC COAST OF NORTH AMERICA. WASMANN J. OF BIOLOGY 9(2):147-148.

IN AUGUST 1946 A SKULL OF STENO ROSTRATUS WAS FOUND AT STINSON BEACH, CALIFORNIA. THIS CONSTITUTES THE FIRST RECORD FOR THIS SPECIES IN THE EASTERN PACIFIC OCEAN. (D)

825. U.S. DEPARTMENT OF COMMERCE. 1978. REPORT OF THE SECRETARY OF COMMERCE ON ADMINISTRATION OF THE MARINE MAMMAL PROTECTION ACT OF 1972. ANNUAL REPORT, APRIL 1, 1977 TO MARCH 31, 1978. PREPARED BY NOAA/NMFS. 183 P.

PAGE 121 BRIEFLY DISCUSSES OVERALL DISTRIBUTION AND GENERAL BIOLOGY OF THE ROUGH-TOOTHED DOLPHIN. NOTES THAT THIS SPECIES IS UNCOMMON BUT NOT RARE THROUGHOUT MOST OF ITS RANGE. (D,P)

TURSIOPS TRUNCATUS - BOTTLENOSED DOLPHIN

826. BUREAU OF LAND MANAGEMENT. 1975. MARINE MAMMALS. PP. 407-445.
IN FINAL ENVIRONMENTAL STATEMENT PROPOSED 1975 OUTER CON-
TINENTAL SHELF OIL AND GAS GENERAL LEASE SALE OFFSHORE
SOUTHERN CALIFORNIA. VOL. 1 OF 5. U.S. DEPT. INTER.
- PAGE 422 INCLUDES INFORMATION ON THE RANGE, POPULATION SIZE, AND (D)
LIFE HISTORY OF TURSIOPS.
827. ESSAPIAN, F.S. 1953. THE BIRTH AND GROWTH OF A PORPOISE. NAT.
HIST. 62:392-399.
- LISTS TIME OF GESTATION AND MATING WITH A GENERAL DISCUSSION (R)
OF REPRODUCTION IN TURSIOPS.
828. EVANS, W.E., J.D. HALL, A.B. IRVINE, AND J.S. LEATHERWOOD. 1972.
METHOD FOR TAGGING SMALL CETACEANS. FISH. BULL., U.S.
70(1):61-65.
- EIGHT BOTTLENOSE DOLPHIN WERE SPAGETTI TAGGED IN AN AREA FROM (D)
PT. CONCEPTION, CALIFORNIA TO CABO SAN LUCAS, BAJA CALIFORNIA.
829. HARRISON, R.J., R.C. BOICE, AND R.L. BROWNELL. 1969. REPRO-
DUCTION IN WILD AND CAPTIVE CETACEANS. NATURE, (LONDON),
222(5199):1143-1147.
- GONADAL CHANGES AND CHARACTERISTICS OF THE CORPORA ALBANTICA (R)
PROVIDE INFORMATION ON REPRODUCTIVE ACTIVITIES IN BOTTLENOSED
DOLPHIN. INCLUDES INFORMATION ABOUT BIRTH, SEX ORGANS, TIMES
OF MATING, AND DIFFERENCES IN AGE.
830. HARRISON, R.J. AND S.H. RIDGWAY. 1971. GONADAL ACTIVITY IN
SOME BOTTLENOSE DOLPHINS (TURSIOPS TRUNCATUS). J. ZOOL.
(LOND.). 165:355-366.
- GOOD DISCUSSION OF LENGTH AND AGE AT ATTAINMENT OF SEXUAL MATURITY, (R)
TIME OF BIRTH, AND LENGTH OF GESTATION. LISTS NUMBER OF YOUNG PER
COW IN A LIFETIME AS EIGHT.
831. HUBBS, C.L. 1953. DOLPHIN PROTECTING DEAD YOUNG. J. MAMMAL.
34(4):498.
- RECORDED SIGHTING BY A LIFEGUARD AT IMPERIAL BEACH, CALIFORNIA (D)
OF A TURSIOPS AND ITS CALF.
832. JOHNSTON, D.G. AND S.H. RIDGWAY. PARASITISM IN SOME MARINE
MAMMALS. J. VET. MED. ASSOC. 155(7):1064-1072.

TURSIOPS

- NOTES THE CAPTURE OF A BOTTLENOSE DOLPHIN NEAR CATALINA ISLAND (D)
IN NOVEMBER 1965.
833. KENYON, K.W. 1952. A BOTTLENOSE DOLPHIN FROM THE CALIFORNIA
COAST. J. MAMMAL. 33(3):385-387.
- RECORDED STRANDING OF A MALE IN DECEMBER 1950 ON TORREY PINES (D)
BEACH, SAN DIEGO, CALIFORNIA.
834. LEATHERWOOD, S. 1975. SOME OBSERVATIONS OF FEEDING BEHAVIOR
OF BOTTLENOSED DOLPHINS (TURSIOPS TRUNCATUS) IN THE NORTH
GULF OF MEXICO AND (TURSIOPS GILLI) OFF SOUTHERN CALIFORNIA,
BAJA CALIFORNIA, AND NAYARIT, MEXICO. MAR. FISH. REV.
37(9):10-16.
- INCLUDES SIGHTINGS NEAR CATALINA ISLAND AND SIGHTINGS OF DOLPHIN (D)
FEEDING ON ANCHOVIES NEAR SAN CLEMENTE ISLAND.
835. LEATHERWOOD, S., M.W. DEERMAN, AND C.W. POTTER. 1978. FOOD AND
REPRODUCTIVE STATUS OF NINE TURSIOPS TRUNCATUS FROM THE
NORTHEASTERN UNITED STATES COAST. CETOLOGY 28, 6 P.
- DISCUSSES REPRODUCTIVE STATUS AND AGE OF NINE BOTTLENOSE DOLPHINS. (R)
SEXUAL MATURITY WAS BASED ON THE PRESENCE OF OVARIAN SCARS ON THE
CORPUS LUTEUM AND THE PRESENCE OF SPERM IN THE TESTES OF EPIDIDYMUS.
836. McBRIDE, A.F. AND H. KRITTLER. 1951. OBSERVATIONS ON PREGNANCY,
PARTURITION, AND POSTNATAL BEHAVIOR IN THE BOTTLENOSE DOL-
PHIN. J. MAMMAL. 32(3):251-266.
- STATES THE AGE OF SEXUAL MATURITY FOR FEMALES IS FOUR YEARS WITH (R)
THE FIRST YOUNG BEING BORN IN THE SPRING OF THE FIFTH YEAR. DIS-
CUSSES LENGTH OF GESTATION AND THE FREQUENCY OF PREGNANCY WHICH
IS GIVEN AS A BIRTH EVERY TWO YEARS.
837. MEAD, J.G. 1975. PRELIMINARY REPORT ON THE FORMER NET FISHERIES
FOR TURSIOPS TRUNCATUS IN THE WESTERN NORTH ATLANTIC. J.
FISH. RES. BD. CAN. 32(7):1155-1162.
- DISCUSSES CATCH SIZES, SCHOOL COMPOSITION, REPRODUCTION, AND LAC- (R)
TATION FOR TURSIOPS CAPTURED IN NET FISHERIES AT CAPE HATTERAS.
838. NISHIWAKI, M. 1972. GENERAL BIOLOGY. PP. 3-204. IN (RIDGWAY,
S.H., ED.), MAMMALS OF THE SEA. BIOLOGY AND MEDICINE.
SPRINGFIELD, IL.: C.C. THOMAS.

TURSIOPS

PAGES 98-99 DISCUSS THE OVERALL DISTRIBUTION, MORPHOLOGY. REPRODUCTION, AND BEHAVIOR OF TURSIOPS GILLI. NOTES THAT THIS SPECIES IS ABUNDANT IN THE NORTH PACIFIC. (D,R)

839. NORRIS, K.S. AND J.H. PRESCOTT. 1961. OBSERVATIONS ON PACIFIC CETACEANS OF CALIFORNIA AND MEXICAN WATERS. UNIV. CALIF. PUBL. ZOOLOG. 63(4):291-402.

PAGES 313-323 DISCUSS THE RANGE, SIGHTINGS, AND CAPTURE RECORDS OF TURSIOPS OFF SOUTHERN CALIFORNIA. INCLUDES INFORMATION ON REPRODUCTION, FEEDING, AND BEHAVIOR. (D)

840. ODELL, D.K. 1975. STATUS AND ASPECTS OF THE LIFE HISTORY OF THE BOTTLENOSE DOLPHIN, TURSIOPS TRUNCATUS, IN FLORIDA. J. FISH. RES. BD. CAN. 32(7):1055-1058.

DISCUSSES LONGEVITY, MORTALITY, SEXUAL MATURATION, CALVING AND MATING, AND POPULATION BIOLOGY. (M,R)

841. ODELL, D.K., D.B. SINIFF, AND G.H. WARING (EDS.). 1975. FINAL REPORT TURSIOPS TRUNCATUS ASSESSMENT WORKSHOP. ROSENSTIEL SCHOOL OF MEDICINE AND ATMOSPHERIC SCIENCE, UNIV. MIAMI. CONTRACT REP. UM-RSMAS-75042. 141 P.

APPENDIX NINE CONTAINS A SUMMARY OF TURSIOPS BIOLOGY (REPRINTED FROM THE J. FISH RES. BD. CAN. 32(7):923-925). DISCUSSES NUMBER AND DISTRIBUTION OF STOCKS, AGE AND LENGTH AT ATTAINMENT OF SEXUAL MATURITY, CALVING INTERVAL, GESTATION, LONGEVITY, FEEDING HABITS, AND STATUS OF STOCKS. (D,P,R)

842. ORR, J.M. 1976. A SURVEY OF TURSIOPS POPULATIONS IN THE COASTAL UNITED STATES, HAWAII AND TERRITORIAL WATERS. PREPARED FOR THE MARINE MAMMAL COMM. UNDER ORDER NO. MM7AD-028. 16 P.

RESULTS OF NUMEROUS AERIAL SURVEYS ESTIMATE 20,000 TO 30,000 INDIVIDUALS ALONG THE COASTAL U.S. AND HAWAII. CALIFORNIA SUPPORTS BOTH AN INSHORE AND AN OFFSHORE POPULATION. THE INSHORE ANIMALS NUMBER APPROXIMATELY 100 AND RANGE FROM HUNTINGTON BEACH DOWN THE COAST TO BAJA, MEXICO. THE OFFSHORE POPULATION NUMBERS IN THE LOW THOUSANDS. SCHOOLS OF 80-200 ANIMALS RANGE FROM THE NORTH CHANNEL ISLANDS SOUTH ALONG THE COASTLINE. THESE ANIMALS ARE ALMOST UNIFORMLY FOUND IN THE COMPANY OF PILOT WHALES. (D,P)

843. ORR, R.T. 1963. A NORTHERN RECORD FOR THE PACIFIC BOTTLENOSE DOLPHIN. J. MAMMAL. 44(3):424.

DISCOVERY OF A SKULL IN SAN FRANCISCO BAY, CALIFORNIA IN 1958. (D)

TURSIOPS

844. RIDGWAY, S.H. AND K. BENIRSCHKE. 1977. BREEDING DOLPHINS; PRESENT STATUS, SUGGESTIONS FOR THE FUTURE. Zool. Soc. of San Diego, FINAL REPORT TO THE U.S. MARINE MAMMAL COMM. CONTRACT MM6AC009, REP. NO. MMC-76/07. 308 P.

CONSISTS OF A COLLECTION OF PAPERS FROM AQUARIA AROUND THE WORLD. (R)
CONTAINS DETAILED REPORTS ON REPRODUCTION AND CAPTIVE BREEDING OF TURSIOPS. LISTS OPTIMUM AGE OF SEXUAL MATURITY FOR FEMALES AS 10-12 YEARS, CHARACTERISTICS OF THE SEXUALLY MATURE BULL, LENGTH OF PARTURITION, LENGTH OF GESTATION AS 12 MONTHS WITH AN 18 MONTH NURSING PERIOD, AND A 2 YEAR INTERVAL BETWEEN BIRTHS. GIVES PERCENT OF CALVES SEEN IN WILD POPULATIONS OFF ALABAMA, MISSISSIPPI, AND LOUISIANA IN 1974-75. LISTS A WILD ORCINUS PREGNANCY RATE OF 13.3%, AND BRIEFLY DISCUSSES REPRODUCTION IN DELPHINUS, LAGENO-RHYNCHUS, KOGIA, AND PSEUDORCA.

845. ROSS, G.J.B. 1977. THE TAXONOMY OF BOTTLENOSED DOLPHINS TURSIOPS SPIECES IN SOUTH AFRICAN WATERS, WITH NOTES ON THEIR BIOLOGY. ANN. CAPE PROV. MUS. (NAT. HIST.) 11(9):194 P. CAPE PROVINCIAL MUSEUMS AT THE ALBANY MUSEUM, GRAHAMSTOWN SOUTH AFRICA.

DISCUSSES DATA CONCERNING THE GROWTH, REPRODUCTION, PARASITES, (M,R)
DISEASES, INJURIES, AND MORTALITY FOR THE SOUTH AFRICAN TURSIOPS ADUNCUS.

846. SERGEANT, D.E. 1959. ON THE EVOLUTION OF LIFE HISTORIES IN THE DELPHINIDAE. SECTION: 8 SEPT. 1959. POPULATIONS OF THE SEA. 3. EVOLUTION AND ADAPTATION IN THE SEA. FISH. RES. BD. CAN., MONTREAL.

DISCUSSES RELATIVE BODY LENGTHS OF THE SEXES, LENGTH AND AGES AT (R)
ATTAINMENT OF SEXUAL MATURITY, AND REPRODUCTIVE FREQUENCY FOR TURSIOPS. NOTES THAT CONCEPTIONS OCCUR ONCE EVERY TWO OR THREE YEARS.

847. SERGEANT, D.E., D.K. CALDWELL, AND M.C. CALDWELL. 1973. AGE, GROWTH, AND MATURITY OF BOTTLENOSED DOLPHIN (TURSIOPS TRUNCATUS) FROM NORTHEAST FLORIDA. J. FISH. RES. BD. CAN. 30(7):1009-1011.

DISCUSSES SEX RATIOS, AGE AND LENGTH AT ATTAINMENT OF SEXUAL (R)
MATURITY, GROWTH CURVE, AND LONGEVITY.

848. SHANE, S. 1977. POPULATION BIOLOGY OF TURSIOPS TRUNCATUS IN TEXAS (ABSTRACT). PROCEEDINGS OF THE SECOND CONFERENCE ON THE BIOLOGY OF MARINE MAMMALS. SAN DIEGO, CALIF., DEC. 12-15, 1977.

TURSIOPS

CONTAINS RESULTS OF A ONE YEAR STUDY OF POPULATION NUMBERS, POD COMPOSITION, DAILY AND SEASONAL MOVEMENTS, AND BEHAVIORAL PATTERNS OF TURSIOPS FOUND IN THE ARANSAS AREA OF THE TEXAS COAST. CALVES CONSTITUTED 7.61% OF ALL SIGHTINGS. (R)

849. TAVOLGA, M.C., AND F.S. ESSAPIAN. 1957. THE BEHAVIOR OF THE BOTTLENOSED DOLPHIN (TURSIOPS TRUNCATUS): MATING, PREGNANCY, PARTURITION, AND MOTHER-INFANT BEHAVIOR. ZOOLOGICA 42(1):11-31.

STATES THAT REPRODUCTION IS USUALLY A TWO YEAR CYCLE WITH MATING OCCURRING FROM FEBRUARY TO MAY. GESTATION LASTS APPROXIMATELY ONE YEAR. (R)

850. U.S. DEPARTMENT OF COMMERCE. 1978. REPORT OF THE SECRETARY OF COMMERCE ON ADMINISTRATION OF THE MARINE MAMMAL PROTECTION ACT OF 1972. ANNUAL REPORT, APRIL 1, 1977 TO MARCH 31, 1978. PREPARED BY NOAA/NMFS. 183 P.

PAGES 123-125 DISCUSS THE OVERALL DISTRIBUTION, ABUNDANCE, AND GENERAL BIOLOGY OF THE BOTTLENOSE DOLPHIN. NOTES THAT THIS DOLPHIN IS COMMON SOUTH OF PT. CONCEPTION PRIMARILY WITHIN THE COASTAL ZONE. (D)

ZIPHIUS CAVIROSTRIS - CUVIER'S BEAKED WHALE

851. BUREAU OF LAND MANAGEMENT. 1975. MARINE MAMMALS. PP. 407-445.
IN FINAL ENVIRONMENTAL STATEMENT PROPOSED 1975 OUTER CONTINENTAL SHELF OIL AND GAS GENERAL LEASE SALE OFFSHORE SOUTHERN CALIFORNIA. VOL 1 OF 5. U.S. DEPT. INTER.

PAGES 418-419 BRIEFLY DISCUSS CALIFORNIA SIGHTINGS, OVERALL DISTRIBUTION, LIFE HISTORY, AND DISEASES OF CUVIER'S BEAKED WHALE. IT REPORTEDLY FEEDS ON SQUID, FISH, SEA CUCUMBERS, CRABS, AND STARFISH. CALVING IS THOUGHT TO TAKE PLACE IN THE FALL. (D)

852. HOUCK, W.J. 1958. CUVIER'S BEAKED WHALE FROM NORTHERN CALIFORNIA. J. MAMMAL. 39(2):308-309.

STRANDING RECORD OF A 19 FOOT 7 INCH LONG MALE WASHED ASHORE 3 MILES NORTH OF ARCATA, CALIFORNIA ON MARCH 1, 1957. (D)

853. HUBBS, C.L. 1946. FIRST RECORDS OF TWO BEAKED WHALES, MESOPLODON BOWDOINI AND ZIPHIUS CAVIROSTRIS, FROM THE PACIFIC COAST OF THE U.S. J. MAMMAL. 27(3):242-255.

STRANDING RECORD OF CUVIER'S BEAKED WHALE WASHED ASHORE ON SEPTEMBER 24, 1945 NEAR DEL MAR, CALIFORNIA. (D)

854. MITCHELL, E. 1968. NORTHEAST PACIFIC STRANDING DISTRIBUTION AND SEASONALITY OF CUVIER'S BEAKED WHALE, ZIPHIUS CAVIROSTRIS. CAN. J. ZOOL. 46(2):265-279.

DISCUSSES PREVIOUSLY KNOWN AND NEW STRANDINGS OF CUVIER'S BEAKED WHALE WITH ACCOMPANYING TABLE AND MAP. NOTES 22 INDIVIDUAL STRANDINGS FROM CALIFORNIA. (D)

855. MITCHELL, E. AND W.J. HOUCK, 1967. CUVIER'S BEAKED WHALE (ZIPHIUS CAVIROSTRIS) STRANDED IN NORTHERN CALIFORNIA. J. FISH. RES. BD. CAN. 24(12):2503-2513.

DISCUSSES FOUR STRANDINGS WITH REFERENCE TO MORPHOLOGY AND OSTEOLOGY. (D)

856. NISHIWAKI, M. 1972. GENERAL BIOLOGY. PP. 3-204. IN (RIDGWAY, S.H., ED.), MAMMALS OF THE SEA. BIOLOGY AND MEDICINE. SPRINGFIELD, IL.: C.C. THOMAS.

PAGES 51-53 BRIEFLY DISCUSS DISTRIBUTION, ABUNDANCE, AND REPRODUCTION OF ZIPHIUS. (D,R)

ZIPHIUS

857. NISHIWAKI, M. AND N. OGURO. 1972. CATCH OF THE CUVIER'S BEAKED WHALES OFF JAPAN IN RECENT YEARS. WHALES RES. INST., SCI. REP. NO. 24:35-41.

DISCUSSES DATA FROM 189 WHALES CAUGHT FROM 1965-70. SEX RATIOS OF CAPTURE BY AREA, MONTH, AND YEAR ARE GIVEN AS WELL AS AN OVERALL RATIO OF 70% MALE (132) AND 30% FEMALE (57). A MALE/FEMALE SIZE DISTRIBUTION GRAPH IS SHOWN. 18 FEET IS THE LENGTH GIVEN AT THE ATTAINMENT OF SEXUAL MATURITY, AND 87% OF ALL WHALES CAPTURED WERE MATURE. (R)

858. NORRIS, K.S. AND J.H. PRESCOTT. 1961. OBSERVATIONS ON PACIFIC CETACEANS OF CALIFORNIA AND MEXICAN WATERS. UNIV. CALIF. PUBL. ZOO. 63:291-370.

PAGES 303-306 DISCUSS RANGE AND CAPTURE OBSERVATIONS OF AN IMMATURE FEMALE CUVIER'S BEAKED WHALE. CAPTURE OCCURRED FEBRUARY 21, 1956, AT SANTA CATALINA ISLAND, CALIFORNIA. (D)

859. OMURA, H., K. FUJINO, AND S. KIMURA. 1955. BEAKED WHALE BERARDIUS BAIRDI OF JAPAN, WITH NOTES ON ZIPHIUS CAVIROSTRIS. WHALES RES. INST., SCI. REP. 10:89-132.

DATA ON 85 CUVIER'S BEAKED WHALES CAUGHT OFF JAPAN FROM 1948-1952 IS DISCUSSED. SEX RATIO WAS 60% MALE, 40% FEMALE. MALE/FEMALE SIZE DISTRIBUTION IS GRAPHED. SEXUAL MATURITY OCCURS IN FEMALES AT ABOUT 20 FEET. (R)

860. ORR, R.T. 1948. A SECOND RECORD FOR CUVIER'S WHALE FROM THE PACIFIC COAST OF U.S. J. MAMMAL. 29(4):420-421.

RECORD OF SKELETAL REMAINS FROM A WHALE WASHED ASHORE IN HUMBOLDT COUNTY, CALIFORNIA. (D)

861. U.S. DEPARTMENT OF COMMERCE. 1978. REPORT OF THE SECRETARY OF COMMERCE ON ADMINISTRATION OF THE MARINE MAMMAL ACT OF 1972. ANNUAL REPORT, APRIL 1, 1977 TO MARCH 31, 1978. PREPARED BY NOAA/NMFS. 183 P.

PAGE 172 DISCUSSES THE OVERALL DISTRIBUTION, ABUNDANCE, AND GENERAL BIOLOGY OF CUVIER'S BEAKED WHALE. NOTES THAT THIS WHALE IS THE MOST FREQUENTLY OBSERVED ZIPHIID IN THE EASTERN NORTH PACIFIC. (D,P)

CURRENT RESEARCH

862. MATE, B.R. MARINE MAMMAL INFORMATION. SEA GRANT COMMUNICATIONS, OREGON STATE UNIV., CORVALLIS, OR.

THIS NEWSLETTER IS PUBLISHED TWICE YEARLY WITH THE PURPOSE OF EXCHANGING TIMELY INFORMATION ON CURRENT MARINE MAMMAL RESEARCH WORLDWIDE. THE NEWSLETTER ALSO CONTAINS A LIST OF THE LATEST TECHNICAL ARTICLES IN THE FIELD AND REPORTS ON THE RESEARCH ASPECTS OF RECENTLY HELD MEETINGS. THE FIRST TWO PUBLICATIONS APPEARED IN DECEMBER 1977 AND MAY 1978.

863. U.S. DEPARTMENT OF COMMERCE. 1978. REPORT OF THE SECRETARY OF COMMERCE ON THE ADMINISTRATION OF THE MARINE MAMMAL PROTECTION ACT OF 1972. ANNUAL REPORT, APRIL 1, 1977 TO MARCH 31, 1978. PREPARED BY NOAA/NMFS. 183 P.

CONTAINS A BRIEF DISCUSSION ON THE GENERAL BIOLOGY OF PINNIPEDS AND CETACEANS FOUND THROUGHOUT THE WORLD. AT THE END OF EACH SPECIES DESCRIPTION THERE IS A SMALL SECTION DISCUSSING RESEARCH CURRENTLY UNDERWAY.

864. WOLMAN, A.A. 1978. INTERNATIONAL MARINE MAMMAL SCIENTISTS DIRECTORY-1978. MAR. MAM. DIV., U.S. DEPT. COMMER., NOAA (NMFS), NORTHWEST AND ALASKA FISHERIES CENTER, SEATTLE, WA. 81 P.

PROVIDES A REFERENCE LIST OF SCIENTISTS INVOLVED IN MARINE MAMMAL RESEARCH FROM AROUND THE WORLD. THE DIRECTORY ALSO GIVES AN INDICATION OF MARINE MAMMAL RESEARCH ACTIVITY IN VARIOUS SPECIALITIES AND COUNTRIES AND PROVIDES ADDRESSES TO ASSIST IN CORRESPONDENCE. PAGES 44-72 COVER RESEARCHERS FROM THE UNITED STATES.

BIBLIOGRAPHY

865. GILBERT, J.R., T.J. QUINN II, AND L.L. EBERHARDT. 1976. AN ANNOTATED BIBLIOGRAPHY OF CENSUS PROCEDURES FOR MARINE MAMMALS. U.S. MARINE MAMMAL COMM. CONTRACT MM4AC014. 163 P.

THIS BIBLIOGRAPHY COVERS LITERATURE THROUGH SEPTEMBER 1975. INCLUDES FUR SEALS, SEA LIONS, HARBOR SEALS AND ELEPHANT SEALS.

866. HERSHKOVITZ, P. 1966. CATALOG OF LIVING WHALES. BULL. U.S. NATL. MUS. 246, 259 P.

AN EXTENSIVE BIBLIOGRAPHY ARRANGED SYSTEMATICALLY. IT PROVIDES SOURCES OF SYNONYMOUS NAMES PLUS TYPE, TYPE LOCALITY, AND DISTRIBUTION. COVERS DELPHINUS, GRAMPUS, LAGENORHYNCHUS, LISSODELPHIS, PHOCOENOIDES, STENO, TURSIOPS, PSEUDORCA, ORCINUS, KOGIA, GLOBICEPHALA, BERARDIUS, MESOPLDON, AND ZIPHIUS.

867. MAGNOLIA, L.R. 1977. WHALES, WHALING, AND WHALE RESEARCH: A SELECTED BIBLIOGRAPHY. THE WHALING MUSEUM SOCIETY, LONG ISLAND, NEW YORK. PUBL. NUMBER WM-1. 91 P.

THIS BIBLIOGRAPHY PRESENTS 1,000 REFERENCES ON THE CETACEA, WHALING TECHNIQUES, RESEARCH ON THESE MAMMALS, AND SUBSTITUTES FOR WHALE DERIVED PRODUCTS.

868. PILLERI, G. (ED.). 1969-1977. INVESTIGATIONS ON CETACEA. VOL. 1-8. BRAIN ANATOMY INSTITUTE, BERNE, SWITZERLAND.

IN THE APPENDIX OF EACH VOLUME THERE IS A BIBLIOGRAPHY OF RECENT CETACEAN LITERATURE.

869. RONALD, K., L.M. HANLY, P.J. HEALY, AND L.J. SELLEY. 1976. AN ANNOTATED BIBLIOGRAPHY ON THE PINNIPEDIA. INTERNATIONAL COUNCIL FOR THE EXPLORATION OF THE SEA. DK 2920 CHARLOTTENLUND-DENMARK. 785 P.

THIS EXTENSIVE BIBLIOGRAPHY CONSISTS OF APPROXIMATELY 9,500 REFERENCES ON SEALS, SEA-LIONS AND WALRUSES DATING FROM THE TIME OF HOMER TO 1975. SUBJECT INDEX IS BROKEN DOWN INTO SPECIFIC PARAMETERS SUCH AS DISTRIBUTION, REPRODUCTION, POPULATION DYNAMICS, ETC.

870. SQUIRE, I.L. 1964. BIBLIOGRAPHY OF CETACEA, LITERATURE PUBLISHED BETWEEN 1949 AND 1963. CHINA LAKE, CALIFORNIA: U.S. NAVAL TEST STATION. NOTS TP 3686; NAVWEPS REP. 8645. 120 P.

A LISTING OF BOOKS, AGENCY REPORTS, AND JOURNAL ARTICLES COVERING ALL CETACEA. HAS AN AUTHOR INDEX.

BIBLIOGRAPHY

871. TRUITT, D. 1974. DOLPHINS AND PORPOISE: A COMPREHENSIVE ANNOTATED BIBLIOGRAPHY OF THE SMALLER CETACEA. DETROIT, MI.: GALE RESEARCH CO., BOOK TOWER. 582 P.

AN IN-DEPTH BIBLIOGRAPHY ON THE ANATOMY, PHYSIOLOGY, DISTRIBUTION, REPRODUCTION, ETHOLOGY, CAPTURE, BEHAVIOR, AND EVOLUTION OF THE SMALLER CETACEANS.

872. WALKER, E.P. 1964. MAMMALS OF THE WORLD - A CLASSIFIED BIBLIOGRAPHY. VOL. III. BALTIMORE: THE JOHN HOPKINS PRESS. 769 P.

PAGES 293-327 AND 414-431 CONTAIN A BIBLIOGRAPHY ON PINNIPEDS AND CETACEANS OF THE WORLD. CITATIONS COVER THE FOLLOWING PARAMETERS: GENERAL ANATOMY, GEOGRAPHIC AREAS, CAPTIVITY, ECONOMIC IMPORTANCE, PARASITES, PHYSIOLOGY, REPRODUCTION, ETC.

873. WHITFIELD, W.K., JR. 1971. AN ANNOTATED BIBLIOGRAPHY OF DOLPHIN AND PORPOISE FAMILIES DELPHINIDAE AND PLATANISTIDAE. FLORIDA DEPT. OF NATURAL RESOURCES, DIV. OF MARINE RESOURCES, SPEC. SCI. REP. NO. 26.

COVERS ALL DATES, LANGUAGES, AND TECHNICAL WORKS. INCLUDES TABLES OF LOCAL NAMES, GROWTH AND REPRODUCTIVE FACTS, AND A LIST OF SPECIES. INCLUDES A SUBJECT INDEX.

AUTHOR INDEX

- Abegglen, C.E. - 83-86
 Adam, A.B. - 815
 Ad Hoc Group IV - 1, 560
 Ainley, D.G. - 87-89, 204-206, 282-285, 334, 368-370, 459-461, 543, 686,
 746-748, 779-781
 Allen, G.M. - 693
 Allen, J.A. - 2
 Allen, S. - 371
 American Society of Mammalogists - 90-95, 286, 462
 Anas, R.E. - 184, 185
 Anderlini, V.C. - 514
 Anderson, H. - 207, 463
 Anderson, H.T. - 584
 Annual Report of the Fisheries Board of Canada - 663
 Anonymous - 96, 287-289, 464-466, 664
 Anthony, A.W. - 290
 Antonelis, G.A. - 47, 353, 467, 749
 Antrim, J.E. - 641
 Aplin, J.A. - 225, 226, 233, 309, 310, 315, 395, 396, 405, 490, 491, 499
 Arseniev, V.A. - 97-101, 147, 454
 Asdell, S.A. - 3, 561
 Asper, E.D. - 702, 750, 820
- Baade, R.T. - 253
 Babb, T.A. - 359
 Baines, G.A. - 124, 125, 231, 498
 Baker, R.C. - 102, 103
 Baldrige, A. - 104-106, 291-294, 372, 687, 694, 704-707, 751-755, 782-785
 Baltz, D.M. - 347, 600, 802, 803
 Baltzo, C.H. - 102, 103
 Bandar, R. - 4
 Banks, R.C. - 639
 Barham, E. - 5, 665, 708, 756, 786
 Barr, L. - 208
 Bartholomew, G.A. - 48-50, 107-109, 209-211, 295-300, 373-376, 468-472, 538
 Baucom, J. - 820
 Bauer, R.D. - 186
 Baxter, J.L. - 227, 269, 314, 493, 546
 Bel'Kovich, V.M. - 627
 Benirschke, K. - 844
 Benson, S.B. - 787
 Bigg, M.A. - 110, 140, 377-383, 473, 757
 Bishop, R.H. - 384
 Boice, R.C. - 585, 649, 713, 829

Bonnell, M.L. - 26, 27, 301, 511
 Bonner, W.N. - 51-53, 385
 Bonnot, P. - 54, 55, 111, 212-217, 302, 386, 387, 474-479, 562
 Bootlootian, R.A. - 211, 299, 376, 470
 Borisov, V.I. - 627
 Boulva, J. - 388, 389
 Braham, H.W. - 112, 218, 480, 481
 Breen, B. - 6, 390, 788
 Briggs, K.T. - 303, 335, 348, 482
 Brooks, A. - 113
 Brown, D. - 7, 219, 304, 391, 483, 563
 Brown, D.H. - 564, 666, 813
 Brown, R.J. - 551
 Brown, S.G. - 565
 Brown, V. - 8, 566
 Brownell, R.L. - 56, 305, 484, 485, 567, 568, 575, 585, 639, 648, 649, 696,
 712, 713, 729, 829
 Bruyns, W.F.J.M. - 569
 Bryden, M.M. - 9, 570
 Bureau of Land Management - 10, 57, 114, 220, 306, 392, 486, 571, 640, 667,
 695, 709, 728, 735, 758, 789, 814, 826, 851
 Bureau of Marine Fisheries - 221, 307, 393, 487
 Burge, R. - 222
 Burns, J.J. - 394
 Burrage, B.R. - 759
 Burt, W.H. - 74
 Butterworth, B.B. - 790

 Caldwell, D.K. - 813, 847
 Caldwell, M.C. - 813, 847
 California Cooperative Fisheries Investigations - 223, 488, 572
 California Department Fish and Game - 224, 489
 California Marine Mammal Center - 11, 573
 Calkins, D. - 442
 Carl, G.C. - 760
 Carlisle, J.G. - 225, 226, 308-310, 395, 396, 490, 491
 Carrick, R. - 311-313
 Chambers, J.R., Jr. - 492
 Chapman, D.G. - 115, 116, 142, 184-187
 Chapman, D.R. - 397
 Clark, G.A. - 117, 118
 Clark, G.H. - 55, 216, 478
 Collins, P.W. - 367, 458, 558, 559
 Collyer, R.D. - 227, 314, 471, 493
 Comrie, L.C. - 815
 Contos, S.M. - 668
 Cooper, S.M. - 69, 179
 Cornell, L.H. - 641, 750, 820
 Coulter, M.C. - 543
 Countryman, D.A. - 336

Cowan, D.F. - 575
 Cowan, I.M. - 791
 Cox, K.W. - 269, 546
 Cox, W.G. - 398
 Craig, A.M. - 119
 Cross, J.L. - 426, 600
 Csordas, S.E. - 311

 Dahlheim, M.E. - 672, 688, 764, 765
 Dailey, M.D. - 12, 574, 575
 Daughtery, A.E. - 13, 576
 Davidson, M.E.M. - 628
 Davis, C.W. - 482
 Dawson, W.R. - 471
 Dearborn, J.H. - 710
 Deerman, M.W. - 835
 DeLong, R.L. - 14, 15, 56, 71, 120, 182, 305, 320, 467, 484, 494, 514, 551
 Dettman, D.H. - 27
 Dietz, D.N. - 399
 Dohl, T.P. - 602
 Dow, R. - 400
 Doyle, S.R. - 401
 Dyché, L.L. - 495

 Eberhardt, L.L. - 865
 Elliot, P.D. - 514
 Ellis, G. - 140
 Enders, R.T. - 178
 Essapian, F.S. - 827, 849
 Evans, W.E. - 591, 592, 642-647, 711, 828
 Everman, B.W. - 121, 228, 229

 Fancher, L.E. - 402
 Farrens, G.D. - 27
 Far Seas Fisheries Research Lab - 122
 Favorite, F. - 25, 588
 Fay, F.H. - 394
 Fedoseev, G.A. - 403, 407
 Fink, B.D. - 496
 Fiscus, C.H. - 16, 123-128, 170, 171, 202, 230-232, 497, 498, 577-579
 Fisher, H.D. - 382, 383, 404
 Fisheries Research Board of Canada - 129
 Fitch, J.E. - 648, 696, 712, 729
 Fleischer, L.A. - 58
 Franz, H.G. - 443
 Fraser, F.C. - 580
 Frey, H.W. - 17, 233, 315, 405, 499
 Fry, D.H. - 234, 500
 Fujinaga, M. - 194
 Fujino, K. - 634, 859

Gantt, R.F. - 341
 Gentry, R.L. - 36, 70, 71, 180, 235, 236, 251, 265, 355, 406, 539
 Geraci, J.R. - 39
 Gilbert, J.R. - 865
 Gilmartin, W.G. - 364, 501, 514, 550, 669
 Gilmore, R.M. - 761
 Girvin, D. - 514
 Gogan, P.J. - 316
 Golstev, V.N. - 407
 Goodwin, H.A. - 59
 Green, K. - 18, 581
 Green, R.F. - 657, 724, 730
 Grinnel, J. - 19, 582
 Groody, T.C. - 787
 Guess, R.C. - 602

 Hall, E.R. - 20, 583
 Hall, J.D. - 592, 646, 669, 711, 828
 Hall, R.E. - 130
 Hamilton, A. - 60
 Hancock, D. - 502
 Handa, C. - 771
 Handley, C.O., Jr. - 697
 Hanly, L.M. - 869
 Hanna, G.D. - 131, 229
 Harrison, R.J. - 9, 24, 344, 382, 408, 570, 584, 585, 649, 670, 713, 730, 829, 830
 Harvey, J.T. - 426
 Hatton, S.R. - 55, 216, 478
 Hayashi, R. - 806
 Healy, P.J. - 869
 Helm, R.C. - 426
 Henderson, R.P. - 87, 88, 204, 205, 282, 283, 368, 369, 459, 460, 686, 746, 747, 779, 780
 HersHKovitz, P. - 866
 Higgens, E. - 714
 Hirasaka, K. - 698
 Hobbs, L.J. - 602
 Hochberg, F.G. - 367, 458, 559
 Hoel, P.G. - 109
 Holloway, C.W. - 59
 Honig, M.W. - 602
 Houck, W.J. - 620, 715, 852, 855
 Howorth, P.C. - 21
 Hubbard, R.C. - 24, 503
 Hubbs, C.L. - 22, 50, 61, 64, 71, 74, 300, 336, 358, 472, 586, 688, 699, 736, 831, 853
 Huber, H.R. - 87-89, 204-206, 282-285, 368-370, 459-461, 686, 746-748, 779-781
 Huey, L.M. - 317
 Hui, C.A. - 650, 671

Jackson, R.A. - 237, 318, 409, 504, 716, 762, 792
Jacobs, S.A. - 514
Jameson, R.J. - 238, 505
Jennison, G. - 651
Jensen, P.T. - 239, 410, 506
Johnson, A.M. - 84, 120, 137-139, 184-187, 319, 320
Johnson, B.W. - 411
Johnston, D.G. - 717, 793, 832
Jonsgard, A. - 718, 763

Kajimura, H. - 124, 126, 127, 140, 150
Kasuya, T. - 629, 742, 794, 795
Kazumoto, Y. - 799
Kellog, R. - 597
Kelly - 66, 168, 255, 345, 425, 523, 599
Kelson, K.R. - 20, 583
Kenneth, J.H. - 652
Kenyon, K.W. - 62, 76, 141-143, 201, 238, 240-242, 321, 362, 412, 505, 507,
533, 545, 833
Keyes, M.C. - 24, 144, 145
Kimura, S. - 634, 859
King, J.E. - 63, 146, 243, 322, 413, 508
Kirby, V.L. - 688
Klinghammer, E. - 768
Knudtson, P.M. - 414-416
Kogai, V.M. - 147
Krittler, H. - 836
Kureha, K. - 742

179

Lopp, R.J. - 253
 Loughlin, T.R. - 417-419
 Lustig, B.L. - 797
 Lyon, G.M. - 28
 Lyshoel, P.B. - 763

 MacAskie, I.B. - 110, 140
 Magnolia, L.R. - 867
 Maguire, T.D. - 438
 Mansfield, A.W. - 39, 81, 138, 247, 383, 389, 420, 421, 428, 451, 516, 529
 Marcuzzi, G. - 593
 Marine Fisheries Branch - 766
 Marine Mammal Biological Laboratory - 152-157
 Marine Mammal Division - 29, 158-163, 594
 Marine Mammal Division Staff - 164, 244, 422, 512, 767, 798
 Marine Resource Operations - 245, 513
 Marsh, M.C. - 165
 Martin, J.H. - 514
 Martin, R.M. - 595
 Martinez, D.R. - 768
 Masaki, Y. - 633, 773
 Mate, B.R. - 30, 31, 65, 166, 246-251, 337, 342, 343, 423, 515-520, 596, 862
 Mathisen, O.A. - 252, 253
 Mattsson, J.L. - 669
 Maxwell, B.E. - 268
 McAllister, B.W. - 140
 McAllister, R. - 254, 424, 521
 McBride, A.F. - 836
 McCann, C. - 630
 McGinnis, S.M. - 344
 Mead, J.G. - 837
 Medway, W. - 39
 Miller, G.S. - 597, 816
 Mitchell, E. - 598, 817, 854, 855
 Mizue, K. - 799
 Moore, J.C. - 737-739
 Morejohn, G.V. - 32, 66, 67, 167, 168, 255, 345-348, 425, 426, 522, 523, 542, 599, 600, 689, 700, 719, 720, 740, 769, 800-803
 Morrell, S.H. - 88, 89, 205, 206, 283-285, 369, 370, 460, 461, 747, 748, 780, 781
 Mountford, M.D. - 453

 Naito, Y. - 427
 Nazarenko, Y.I. - 428
 Neff, J.A. - 549
 Newby, T.C. - 429, 430
 Nidever, H.B. - 673
 Niggol, K. - 128, 169-171, 202, 579
 Nishiwaki, M. - 33, 68, 172, 256, 349, 431, 524, 601, 631, 632, 653, 674, 690, 701, 721, 732, 741, 742, 770, 771, 804, 818, 823, 838, 856, 857

Nordli, O. - 718
 Norman, J.R. - 580
 Norris, K.S. - 564, 602, 615, 654, 675, 676, 697, 722, 733, 739, 772, 805,
 819, 839, 858
 North Pacific Fur Seal Commission - 173-176

 Odell, D.K. - 257, 350-353, 432, 525-529, 702 820, 840, 841
 Odemar, M. - 258, 433, 530
 Oguro, N. - 632, 742, 857
 Ohsumi, S. - 603, 633, 773
 Okada, Y. - 806
 Okumoto, N. - 134-136
 Oliphant, M.S. - 531
 Oliver, C.W. - 655
 Olla, B.L. - 731, 801
 Omura, H. - 634, 859
 Orr, J.M. - 842
 Orr, R.T. - 177, 259-261, 354, 358, 434, 532, 533, 604, 691, 743, 824, 843,
 860

 Page, R.D. - 34
 Panin, K.I. - 147, 454
 Panken, K.J. - 338
 Parrish, R. - 534
 Patten, D.R. - 35, 605
 Paulbitski, P.A. - 262, 435-438, 535
 Payne, M. - 677
 Pearson, A.K. - 178
 Perel, M. - 140
 Perrin, W.F. - 688, 765
 Peterson, R.S. - 24, 36, 69-72, 74, 179-182, 263-266, 339, 340, 355-357,
 439, 509, 536-542
 Philbrick, R.N. - 49, 107, 210, 298, 375, 469
 Pierotti, R.J. - 543
 Pierson, M.O. - 27
 Pike, G.C. - 267, 268, 440, 606
 Pilleri, G. - 593, 868
 Pitcher, K.W. - 441, 442
 Potter, C.W. - 835
 Poulter, T.C. - 177, 259-261, 354, 434, 532
 Power, D. - 26
 Prescott, J.H. - 654, 676, 722, 733, 772, 805, 819, 839, 858

 Quinn II, T.J. - 865

 Radford, K.W. - 358
 Ramsey, D.H. - 72, 359
 Rand, R.W. - 73
 Reeder, W.G. - 821
 Regents of the University of California - 27, 37, 602, 607

Reijnders, P.J.H. - 443
 Reilly, S.B. - 678, 679
 Repenning, C.A. - 74
 Rett, E.Z. - 360
 Rice, C.E. - 24
 Rice, D.W. - 38, 75, 76, 183, 241, 361, 362, 444, 544, 545, 591, 608, 635,
 636, 656, 680, 723, 774
 Ridgway, S.H. - 39, 68, 172, 256, 344, 349, 431, 524, 631, 653, 657, 674, 690,
 701, 717, 721, 724, 730, 732, 741, 770, 793, 804, 807, 818,
 823, 830, 832, 838, 844, 856
 Ripley, W.E. - 217, 269, 479, 546
 Risebrough, R.W. - 445, 514
 Roest, A.I. - 40, 609, 610, 744
 Ronald, K. - 39, 81, 138, 247, 383, 389, 428, 451, 516, 529, 869
 Roppel, A.Y. - 83-86, 184-187
 Rosenthal, R.J. - 446
 Ross, G.J.B. - 845
 Rowley, J. - 270, 547

 Sandegren, F.E. - 271
 Scammon, C.M. - 41, 611
 Scheffer, T.H. - 447, 448
 Scheffer, V.B. - 77, 141, 142, 188, 189, 232, 242, 272, 321, 363, 412, 449,
 507, 548, 549, 612, 725, 726, 775, 776, 808, 809
 Schevill, W.E. - 636
 Schoenwald, J. - 42, 533, 613
 Schusterman, R.J. - 24, 344
 Scott, K. - 190
 Sea World - 777
 Selander, R.K. - 301
 Selly, L.J. - 869
 Sergeant, D.E. - 421, 658, 681, 682, 846, 847
 Shane, S. - 848
 Shapovalov, L. - 43
 Shaughnessy, P.D. - 450
 Shreiber, R.W. - 56, 305, 484
 Simpson, J.G. - 364, 550
 Siniff, D.B. - 841
 Skilling, D.E. - 551
 Sleptsov, M.M. - 659, 660
 Slijper, E.J. - 614, 616
 Smith, A.W. - 551
 Smith, H.M. - 273, 552
 Smith, P.E. - 191, 553, 661
 Smith, T.G. - 451
 Smithsonian Institution - 44, 617, 618
 Smyshlyayev, M.I. - 622
 Southwest Fisheries Center - 619
 Spaulding, D.J. - 192, 274, 452
 Sperry, C.C. - 448
 Squirre, I.L. - 870

SUBJECT INDEX

PINNIPEDIA

Comprehensive

Distribution	1, 2, 4-8, 10-15, 17-23, 25-33, 35-38, 40-45
Effort	27, 37
Fishery Interactions	1, 4, 6, 11, 14, 16-18, 22, 24, 25, 32, 35, 40, 42, 43
Natural Mortality	26, 27, 39
Population Estimates	12, 13, 15, 16, 18, 22, 25-27, 30, 31, 36, 37, 40
Reproduction	3, 9, 26, 27, 36, 37

Arctocephalus townsendi

Distribution	47-49, 54, 55, 57-66, 68, 69, 71, 74-79, 82
Effort	
Fishery Interactions	
Natural Mortality	51-53, 58, 81
Population Estimates	49, 50, 56-59, 62, 64, 66, 68, 69, 71, 76, 79, 80
Reproduction	51, 53, 58, 71-73, 76, 79

Callorhinus ursinus

Distribution	87, 88, 91, 102-107, 111-114, 121, 123, 124, 126-128, 130, 131, 139-141, 143, 146, 149, 150, 152-154, 166-168, 171-177, 179, 181-183, 189, 190, 193, 194, 197-199, 201, 202
--------------	---

SUBJECT INDEX - PINNIPEDIA

Effort	104-106, 126-128, 131, 140, 152, 153, 171, 191, 194, 202
Fishery Interactions	123, 126-128, 140, 141, 152, 164, 171, 173-176, 188, 191, 192, 194, 201, 202
Natural Mortality	84-86, 90, 92-94, 97-103, 108, 114-116, 119, 120, 132, 133, 137, 139, 142-145, 147-150, 152-163, 165, 169, 173-176, 184-187, 195, 196
Population Estimates	91-96, 102, 103, 114, 117, 118, 120, 123, 128, 138-141, 149-152, 158-163, 166, 168, 171, 172, 179, 182, 189, 194, 197-199, 202
Reproduction	83-86, 91-95, 97-103, 108-110, 115, 116, 119, 120, 122, 124-128, 132, 134, 135, 139, 142, 147, 149, 150, 152-163, 170-176, 178, 184-187, 194-196, 200, 202, 203

Eumetopias jubatus

Distribution	204, 205, 208-223, 225, 226, 230, 231, 233, 234, 237, 238, 240-243, 247-249, 251, 252, 255, 256, 259, 262-264, 269, 270, 272, 275-277, 280
Effort	222, 224
Fishery Interactions	204, 207, 208, 212, 215, 228, 230-232, 238-240, 242, 244, 245, 250, 254, 258, 267, 273, 274, 279, 280
Natural Mortality	204, 205, 215, 228, 236, 246, 251, 260, 261, 268, 271, 278
Population Estimates	204, 205, 207, 208, 210-217, 219-221, 225-230, 233-236, 241-243, 248, 249, 251, 252, 255-257, 260, 261, 263, 264, 266, 269-272, 275, 276, 280, 281
Reproduction	204, 205, 211, 215, 228, 229, 235, 236, 246, 251, 253, 256, 257, 260, 261, 268, 271, 278

SUBJECT INDEX - PINNIPEDIA

Mirounga angustirostris

Distribution	282, 283, 288-294, 296-302, 304-307, 309, 310, 315-319, 321, 322, 328, 329, 332-334, 337, 338, 342-345, 347, 349, 350, 353, 358, 360-367
Effort	291-294
Fishery Interactions	287, 317, 347
Natural Mortality	282, 283, 285, 286, 296, 299, 303, 312, 313, 316, 323, 326, 331-333, 335, 336, 341, 344, 348, 350-352, 358, 362
Population Estimates	282, 283, 286, 295, 296, 298-302, 305-310, 314-316, 319, 322, 327, 328, 332-335, 338-340, 343-345, 348-354, 356-360, 362, 363, 365, 366
Reproduction	282, 283, 286, 296, 299, 303, 311, 312, 316, 319, 324-326, 328, 330-333, 335, 336, 338, 339, 341, 344, 350-354, 356-359, 362, 365

Phoca vitulina

Distribution	368, 369, 372, 376, 378, 385-387, 390- 393, 400, 405, 406, 409, 412-414, 417, 419, 423, 425-427, 429-431, 435-437, 439, 444, 445, 449, 450, 455, 456, 458
Effort	423
Fishery Interactions	387, 390, 410, 412, 417, 422, 424, 426, 429, 433, 437, 447, 448, 452
Natural Mortality	376, 379, 385, 388, 389, 403, 404, 429, 430, 441, 443, 445, 451, 458
Population Estimates	368, 369, 373-376, 385-387, 390-393, 395, 396, 400, 405, 406, 414, 416-419, 423, 425, 427, 429, 431, 432, 434, 436- 438, 445, 446, 456, 457
Reproduction	369, 376, 379-383, 385, 388, 389, 391, 394, 403, 404, 406, 408, 414, 416-419, 427-430, 441-443, 445, 451, 453, 454, 456

SUBJECT INDEX - PINNIPEDIA

Zalophus californianus

Distribution	459, 460, 469, 470, 472-479, 481, 483, 486-488, 490, 491, 495-500, 502, 504, 505, 507-509, 511, 516-519, 522-524, 526, 529, 531-533, 535-537, 540, 543-550, 554, 555, 558, 559
Effort	489, 544, 553
Fishery Interactions	460, 463-466, 474, 477, 482, 495, 497, 498, 505, 506, 512, 513, 520, 521, 530, 535, 547, 552, 553
Natural Mortality	462, 467, 470, 471, 477, 485, 486, 494, 501, 503, 511, 514, 515, 518, 525-528, 538, 541, 551, 558, 559
Population Estimates	459, 460, 463, 467-471, 474-479, 481, 483, 484, 486, 487, 490, 491, 493, 497, 499, 500, 508-510, 517-519, 523, 524, 526-529, 532, 536-538, 540, 541, 544-548, 554-557
Reproduction	467, 468, 470, 471, 477, 518, 525-529, 538, 551

SUBJECT INDEX

CETACEA

Comprehensive

Distribution	560, 562-564, 566-569, 571-577, 579, 581-583, 586, 587, 589-599, 601, 602, 604-614, 617-621, 623-627
Effort	579, 592, 602, 623
Fishery Interactions	560, 577, 578, 581, 586, 588, 605, 613
Natural Mortality	622, 627
Population Estimates	574, 577, 581, 598, 602, 607, 620, 623
Reproduction	561, 570, 580, 584, 585, 598, 602, 603, 615, 616, 621, 627

Berardius bairdii

Distribution	628, 630-633, 635-638
Effort	
Fishery Interactions	
Natural Mortality	
Population Estimates	633, 636
Reproduction	629, 632, 634

Delphinus delphis

Distribution	639-642, 644-648, 650, 653, 654, 656, 657, 662
Effort	645, 661
Fishery Interactions	643, 648, 661, 662

SUBJECT INDEX - CETACEA

Natural Mortality	650
Population Estimates	640, 643-645
Reproduction	645, 649, 655, 657-660

Globicephala macrorhynchus

Distribution	664-667, 669, 671-676, 678-680, 683-685
Effort	671
Fishery Interactions	668, 677
Natural Mortality	682
Population Estimates	667
Reproduction	663, 670, 679, 681-683

Grampus griseus

Distribution	686-688, 690-692
Effort	688
Fishery Interactions	691
Natural Mortality	
Population Estimates	
Reproduction	

Kogia breviceps

Distribution	694, 695, 697, 699-701, 703
Effort	
Fishery Interactions	696

SUBJECT INDEX - CETACEA

Natural Mortality

Population Estimates 697

Reproduction 693, 697, 702, 703

Lagenorhynchus obliquidens

Distribution 704-712, 714-717, 719, 721-727

Effort

Fishery Interactions 712

Natural Mortality

Population Estimates 709

Reproduction 713, 718, 724

Lissodelphis borealis

Distribution 728, 729, 731-734

Effort 731

Fishery Interactions

Natural Mortality

Population Estimates 728, 731

Reproduction 731

Mesoplodon sp.

Distribution 735-739, 741, 743-745

Effort

Fishery Interactions

Natural Mortality

Population Estimates

SUBJECT INDEX - CETACEA

Reproduction

Orcinus orca

Distribution	746, 747, 750-759, 761, 762, 764-766, 768-770, 772-778
Effort	765
Fishery Interactions	749, 767, 778
Natural Mortality	
Population Estimates	758
Reproduction	760, 763, 770, 771, 777

Phocoenoides dalli

Distribution	779, 780, 782-793, 796, 797, 800, 803- 805, 807-812
Effort	
Fishery Interactions	788, 798, 809
Natural Mortality	795
Population Estimates	789, 794
Reproduction	794-796, 799, 802, 806, 811

Pseudorca crassidens

Distribution	813, 814, 816-819, 821, 822
Effort	
Fishery Interactions	
Natural Mortality	
Population Estimates	814, 822
Reproduction	815, 820

SUBJECT INDEX - CETACEA

Steno bredanensis

Distribution	823-825
Effort	
Fishery Interactions	
Natural Mortality	
Population Estimates	825
Reproduction	

Tursiops truncatus

Distribution	826, 828, 831-834, 838, 839, 841-843, 850
Effort	
Fishery Interactions	
Natural Mortality	840, 845
Population Estimates	841, 842
Reproduction	827, 829, 830, 835-838, 840, 841, 844-849

Ziphius cavirostris

Distribution	851-856, 858, 860, 861
Effort	
Fishery Interactions	
Natural Mortality	
Population Estimates	861
Reproduction	856, 857, 859

